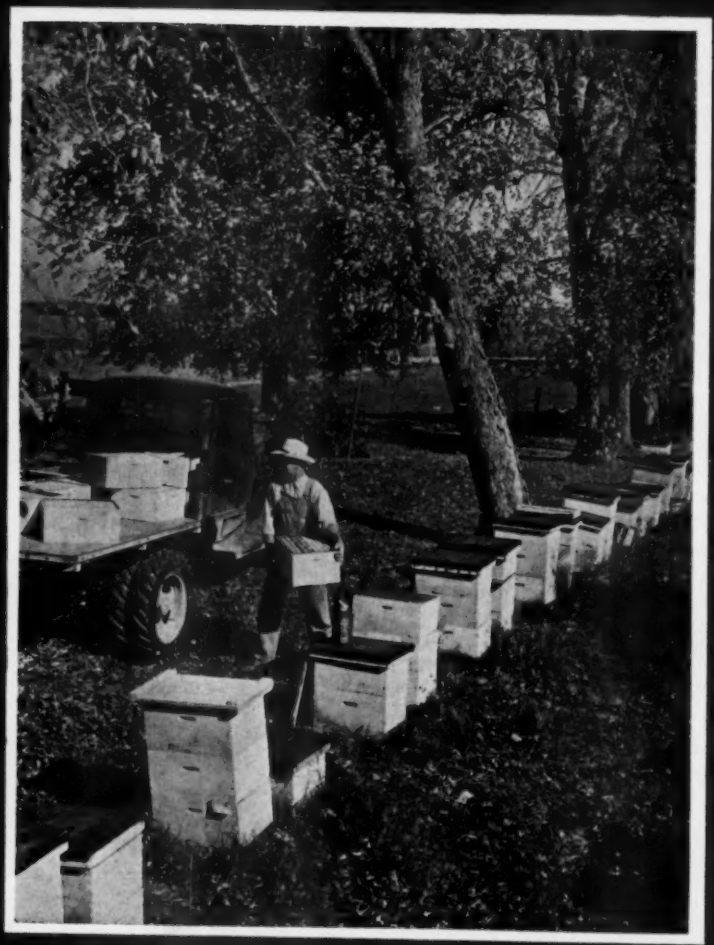
American BEE JOURNAL



VOL. [illegible] JUNE, 1942

HARVEST ROUND-UP

Renew Your Subscription

Food for Thought

Steel Strapping for Moving . . .

On another page appears an article by Roger A. Morse, of the Beekeeping Staff at Cornell University, on the use of steel strapping in binding colonies together for moving, instead of wood strips or the usual hive staples.

We know of several beekeepers who are using the same procedure, probably with different makes of strapping. Both the flat strapping, as shown by Mr. Morse, and the round wire strapping are being used. One problem has been the damaging of the edges of the hive by the sharp cutting of the strap when in place. This seems obviated by the corner protectors as used by Mr. Morse. Others state that if the strap is not put on too tightly there will be little or no damage to the hive, cover or super.

Certainly in this age of move after move of our colonies, especially for pollination purposes, a handier method than the old strip or even the staple is sure to be evolved. The box strap looks like the solution.

What Does It Cost to Sell a Pound of Honey . . .

The Minnesota Beekeeper, April, 1952, points out that we all have an investment in the business of honey production. Our inventory of hives, supers, machinery, trucks and the like will tell us quite accurately what our present investment may be. That amount, whether it be $1000 or $100,000 is our investment in honey production. But what about our investment in promotion or sale of honey?

Our cost accounting may show that it costs us ten cents to produce a pound of honey, but what does it cost to sell a pound of honey? How many of us set aside any amount for promotion? We tell ourselves that the price of honey is so low that we have nothing left for promotion; we expect honey to sell itself. Maybe that is the very reason that honey is so low in price.

In Minnesota less than five per cent of beekeepers respond to appeals for membership in their State Association, the American Beekeeping Federation, or the American Honey Institute, and these organizations have put two cents more for every pound of honey produced into the pockets of Minnesota beekeepers. Minnesota is no exception; other states are much the same. If so small an investment in promotion can bring so much return, how much more would we prosper if we set aside more for promotion?

It is a distressing fact that the only means many producer-packers now have of selling honey is cutting price. This is the alternative to promoting consumer demand, and what a costly one! By this method we are putting ourselves out of business and others with us.

The editor of the Minnesota Beekeeper hazards the statement that every cent per pound we would now spend for promotion would return more profit than five cents spent for production. We endorse his statement. The editorial concludes with this quotation: "He which soweth sparingly shall reap also sparingly; and he which soweth bountifully shall reap bountifully." —II Corinthians 9:6.

Jim Hambleton Goes Up the Ladder . . .

We congratulate James I. Hambleton and wish him every success with his new job as head of the Division of Bee Culture and Biological Control, Bureau of Entomology and Plant Quarantine, U.S.D.A. W. J. Nolan, formerly Hambleton's first assistant, will head the Section of Bee Culture Research, and Theodore R. Gardner will head the Section of Biological Control. Both Hambleton and Nolan have been with the Division of Bee Culture for more than thirty years.

Avery S. Hoyt, chief of the Bureau, pointed out that consolidating all research on beneficial insects and biological control should result in greater efficiency of organization and far-reaching research accomplishments. So far, research on beneficial insects has shown how to make effective use of honey bees as pollinators of seed and fruit crops, adding millions of dollars to the value of these crops. The studies of bee diseases and their prevention, and research into the best methods of bee management, have placed beekeeping on a commercial basis.

Biological control research has to do with control of insect pests and weeds, including diseases of insects. The importance of biological control was demonstrated as far back as 1892, when U.S.D.A. entomologists introduced the Vedalia beetle into California from Australia to control cottony cushion scale. But the science of biological control still is a relatively new approach to the problem of control of insect pests and weeds. Entomologists, seeking to kill harmful insects also killed their predators in many instances, thus pledging agriculture to a continuing poison program, often very serious to beekeeping. Moreover, they found that insects developed immunity to their insecticides and sometimes, when the beneficial predators of the harmful insects were destroyed, much more serious infestations of injurious insects resulted.

So the combination of the Division of Bee Culture, which always has dealt with a beneficial insect—the honey bee,— with the Section of Biological Control, which seeks to find and to put into practice methods for controlling harmful insects and weeds through means other than chemical poisons, is indeed a happy marriage in our opinion. Headed by our good friend, Jim Hambleton, who has the interest of the beekeeping industry in his very blood and who has been one of our most forward looking leaders these many years, the married life of the new Division of Bee Culture and Biological Control should be a most successful and beneficial one.

Vol. 92, No. 6 June, 1952

THE AMERICAN BEE JOURNAL

HAMILTON, ILLINOIS

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Contents

Our Cover Picture

The cover picture for this month comes from John Allen and Son, West Lafayette, Indiana, well known agricultural photographers whose pictures have often appeared in the Journal both on the covers and inside. There is no indication to reveal who this beekeeper is but for the Round-up on the honey harvest it would be hard to find an illustration more in harmony with the subject.

The 1952 Support Program

THE detailed regulation of price support operations was issued April 23, 1952, by the Commodity Credit Corporation. The program will be administered by the Fruit and Vegetable Branch, PMA, under the general direction and supervision of the president of CCC, and in the field will be carried out by the state and county PMA committees.

Any individual, partnership, association or corporation producing extracted honey in 1952 will be eligible to participate in the program, and any group of producers may designate an agent to act in their behalf in obtaining price support under this program. Cooperative associations also are eligible to participate providing they comply with certain specified requirements.

The program will be carried out through loans on honey stored in approved farm storage or in an approved warehouse, and through purchase agreements. Loans and purchase agreements will be made available to producers in Florida, Georgia, South Carolina, Alabama, Louisiana, Texas, New Mexico, Arizona and California from April 1 through October 31, 1952. In all other states, the period will be from July 1 through December 31, 1952.

The support prices for the 1952 program are as follows:

For the states of Montana, Wyoming, Colorado, New Mexico and all states west thereof:

White or lighter table honey---
---------- 11.50 cents per pound
Darker than white table honey-
---------- 11.00 cents per pound
Nontable honey ----------
---------- 9.50 cents per pound

For all of the states east of Montana, Wyoming, Colorado and New Mexico:

White or lighter table honey---
---------- 12.25 cents per pound
Darker than white table honey-
---------- 11.75 cents per pound
Nontable honey ----------
---------- 10.25 cents per pound

"Table honey" is defined as honey of a flavor which can be readily marketed for table use in all parts of the country. Such honeys include alfalfa, basswood, Brazil brush, catsclaw, clethra, clover, cotton, firewood, gallberry, haujillo, huckleberry, lima bean, locust, mesquite, milkweed, orange, raspberry, sage, sourwood, thistle, tupelo, vetch, western wild buckwheat, and similar mild-flavored honeys or blends. The color of the honey will be determined in accordance with U. S. Standards for Grades of Extracted Honey, effective April 16, 1951.

"Nontable honey" means honey of a flavor having limited national acceptability for table use but considered to be of table quality in most areas in which it is produced, and includes aster, boneset, buckwheat, cascara, dandelion, eucalyptus, goldenrod, heartsease or smartweed, holly, horsemint, partridge pea, mangrove, manzanita, palmetto, sumac, Spanish needle, tamarisk, thyme, ti-ti, tulip tree, yellow top, and similar honeys or blends.

To be eligible, the honey must be produced in the United States, must be packed in clean, sound, transportable bulk containers, and must grade A, B or C of the United States Standards. However, in areas where the State Committee determines that existing conditions make fermentation probable during the period of storage, the minimum moisture content may, with the approval of the Director of the Fruit and Vegetable Branch, be established at not more than 18.6 per cent.

Honeys of objectionable flavor, including athel, avocado, bitterweed, broomweed, carrot, chinquapin, dog fennel, desert hollyhock, gumweed, mescal, onion, prickly pear, prune, tarweed and similar honeys or blends, as determined by the Director of the Fruit and Vegetable Branch, will not be eligible for price support.

Loans will be made only on honey in approved storage. Approved farm storage is defined as structures determined by the county committee to be so located and constructed to afford safe storage, being dry, clean, weatherproof, and able to be locked. Where the structure is not used solely to house honey under loan, a suitable partition must be used to preserve identity and to segregate the lot from other honey. Storage by cooperative associations is the same except that the identity of each producer's lot is not required. Warehouse storage is in any warehouse for which a CCC Storage Agreement is in effect. The names and locations of approved warehouses will be available through the state and county committees.

A service charge will be made to the producer on the quantity of honey placed under the program as follows:

For farm-storage loans—5 cents per 100 pounds of honey, or a minimum charge of $3.00. The same rate applies to warehouse-storage loans.

For purchase agreements — 2½ cents per 100 pounds of honey, or a minimum charge of $1.50.

Under a purchase-agreement plan, the producer goes to his county committee office and signs Commodity Purchase Form 1. The quantity of honey stated in the agreement will be the maximum quantity he may sell to CCC. The producer is not obligated to sell any amount of honey to CCC and it is hoped that his honey will move to market through normal channels of trade. If it does become necessary, the producer will have thirty days in which to notify the county committee of his intent to sell. Deliveries, however, will not be accepted before March 31, 1953, unless prescribed earlier by the president of CCC; and the honey must be delivered by the producer to a designated delivery point. On delivery of the honey and determination of quantity and quality, the producer will receive a sight draft in payment from his county office. Under a purchase agreement, there are no requirements with respect to storage, but the responsibility of delivering honey which meets grade and other specifications rests with the producer.

The procedure under a loan program is more complicated and it is probable that only producers holding fairly substantial amounts of honey will use this method. On application for a loan, the county PMA committee must approve the farm storage or, in the case of a cooperative association, the state PMA committee approves storage facilities. Honey samples are furnished at no charge by the producer, the samples are

drawn, and the quantity of the honey determined by the county committee. The samples are forwarded by the county representatives for determination of grade and color to the Processed Products Standardization and Inspection Division, Fruit and Vegetable Branch, PMA. The county committee collects the cost of inspection from the producer at the time of sampling. The inspection cost is not stated but likely will not be excessive in most cases.

Loans made under the program will bear an interest rate of 3½ per cent and the maturity date will not be later than March 31, 1953. As in the case of a purchase agreement, the responsibility of storage is that of the producer. Insurance on the stored crop is not required. The producer retains up to the date of maturity of the loan a considerable responsibility in his crop and it is sincerely hoped that he will be able to sell the honey through normal channels of trade. Through his county committee, he can obtain release from the loan at any time by paying to the holder of his note the principal amount plus charges and accrued interest. Partial release also can be arranged. If by the maturity date, the producer has not been able to sell his honey in an orderly manner, he is required either to pay off the loan or to deliver the honey to a delivery point approved by the state PMA committee and the Fruit and Vegetable Branch. In the case of a warehouse-storage loan, at the date of maturity CCC buys the honey at the market value or the support level whichever is higher.

State and county PMA committees are familiar with both the loan and purchase agreement procedures and will be glad to advise producers which plan is best for them, and to explain in greater detail and more clearly the procedures involved in each method of support.

Producers also are advised to obtain a copy of the regulation and study it carefully. Copies can be obtained either from your state or county PMA committees, or by writing to Mr. E. M. Graham, Chief of the Special Commodities Section, Fruit and Vegetable Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C. The regulation carries the official designation [721 (Honey 52)-1; 1952 Honey Bulletin 1] Part 624—Honey, Subpart—1952 Honey Price Support Program.

Bread n' Honey

Imagine our surprise to walk into a home bakery store and find our gaze resting—not upon loaves of freshly baked bread—but on rows and rows of attractive honey containers.

And yet, this is an actual testimonial to one enterprising beekeeper. He had graded his honey carefully, packed the different honeys from different floral sources in different containers. He had labeled these correctly—"buckwheat honey," "clover honey," "mixed honey," and so on. And then, wonders upon wonders, he had succeeded in convincing the bakery owner that by selling honey in his store he would increase the sale of his bread. For what makes a more delicious combination than honey and bread?

And he was right. His appealing honey display coupled with the warm, fresh smell of newly baked bread, made honey and bread sales jump. The price of the honey was not low; on the contrary, it was higher than the going price of honey in that locality at the time. But Mr. Smart Beekeeper had made a specialty of his special honeys and found that the consumer was willing to pay more for them.

We call this smart business. Honestly labeling the honey as to its floral source, displaying only clean, sanitary honey containers, placing the display in a specialty store—all adds up to a good profit for the beekeeper.

More power to the beekeeper who applies this sort of initiative to his business.

This same good business sense has made him a member of the American Honey Institute for many years.

American Honey Institute
Madison 3, Wisconsin.

New Edition on Destructive And Useful Insects . . .

A new 1951 third edition of Flint & Metcalf's "Destructive and Useful Insects" published by the McGraw-Hill Book Co., is at hand. Both the original authors are deceased. The revision which is quite an extensive one was entrusted to R. L. Metcalf, associate entomologist of the University of California College of Agriculture, who had collaborated on the previous editions.

The two extensive revisions are first, in the internal anatomy and physiology of insects, recording work done since the last edition. By far the greatest change has been made in insect control. Over 150 substances for spray and other controls are described and their application detailed. In most instances, warning is given as to the necessity of care in application owing to the importance of honey bees and other insects for pollination. This angle might perhaps have been stressed more.

The first fourth of the book is general in scope, the last three-fourths dealing especially with the injurious insects and how to combat them. The book is a "must" for students and entomologists; is finely done, nicely illustrated, contains 1069 pages and sells for $10.00. We shall be glad to take orders for the book at the American Bee Journal office.

The Milum Wax Moth Article Series . . .

The series of articles by Dr. V. G. Milum on the wax moth, which we consider basic knowledge for beekeepers, started in April with descriptions of the adult moths. In May the characters and habits of the larvae were given.

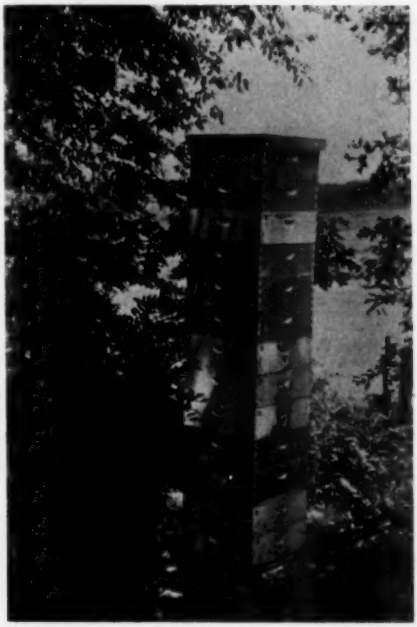
The third and last in the series, The Control of Wax Moths, should be in this June issue. Unfortunately the promised publication of articles in the general section (following the Round-up) left so little room that we had to make the decision to delay this moth control article until August. The Round-up for July will entirely fill the issue and can't be dodged.

We are sorry both because of the break in continuity in the fine series by Dr. Milum and for the reader who may look for the control advice earlier than August. After all having to make decisions at the editor's desk is often pretty difficult.

The Effect of a Two-Queen System on the Harvest

an interview with Dr. C. L. Farrar

by G. H. Cale



Can you match this for honey production? This is an entire shallow super colony, for both brood and storage.

THE editor, when visiting the Madison laboratory, asked C. L. Farrar the question, "Isn't your two-queen system of management too much work?" Farrar replied, "If you are interested in getting those kind of crops, you will find a way to adapt yourself to the management." We discussed at some length the magnitude of "those kind of crops," the principles of bee behavior involved, and the differences in labor and management. In my opinion and experience, he gave a good answer.

It was like the answer he gave a University colleague who purchased water white clover honey in the comb and asked, "How do you keep it?" The reply was, "It won't keep." A brief answer indeed, but the professor saw Farrar a short time later and stated, "I know what you mean that the honey won't keep—I have had to hide it from my family in order to have some for the holidays."

Thinking some of his remarks appropriate to this issue on the "harvest round-up," I asked him to give me his results of using two queens. His reply follows:

"Two-queen colony management represents an intensive system of management designed to obtain maximum honey yields from each hive unit. The principles involved, methods, and advantages and disadvantages are given in Bureau of Entomology and Plant Quarantine Circular E-693, Two-Queen Colony Management, May 1946. Comparative yields were given for 287 two-queen colonies, 200 single-queen colonies, and 1,227 package colonies for the years 1934 to 1945.

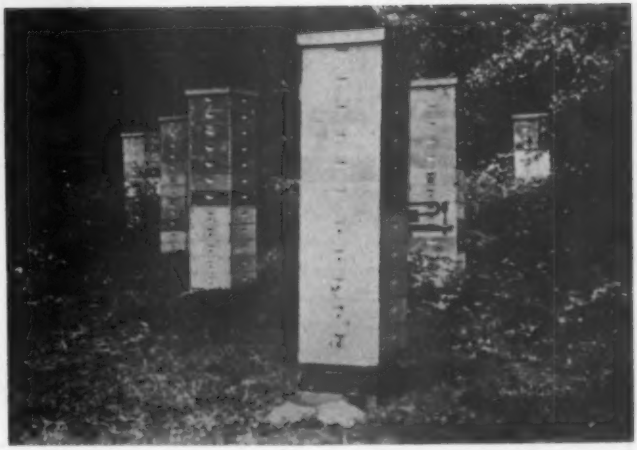
"Two-queen colony yields obtained during 11 years averaged 270 pounds with yearly averages ranging from 188 to 435 pounds. Maximum colony yields averaged 434 pounds and ranged from 216 to 657 pounds. The spread between the average and maximum yields may be attributed partially to a need for gaining experience with procedures, i.e. timing the divisions and reuniting them to single-queen status. Stock differences occurred and many inferior queens were not replaced because we were attempting to measure factors affecting colony yield rather than filling the maximum number of containers.

"Generalized averages for the 5-year period 1946 to 1950 that are not weighted for numbers of colonies show average yields of 192 pounds and an average maximum yield of 335 pounds.

"These averages include the results for 1946 when two-queen colonies averaged only 14 pounds above winter consumption. The crop that year was considered a complete failure since 190 package colonies showed an average net loss of -59.1 pounds below winter reserves or 73 less than the two-queen average. The best package produced a net yield of only 5 pounds and the best two-queen colony 124 pounds.

"In 1949 a study was made on the influence of stock (queens) in the upper and lower brood nests of the two-queen colonies. Between the two lines in each, there was an average difference of 30 pounds attributable to superior stock in either the upper or lower brood nests. At 10-cent honey, this would mean the best queens would be worth three dollars more than the poorer ones. This emphasizes the fact that a scheme of management is only one factor in determining results or yields—the time, intensity and duration of the nectar supply, the type of stock, pollen and honey supply for brood rearing before the honeyflow, and disease are all limiting factors. For these reasons, average yields will never equal the maxima but recognition of the causes of variation point to opportunities for narrowing the spread between them.

"Colonies managed under the two-queen system and united back to single-queen status 2 to 4 weeks before the end of the main honeyflow enter the winter period with larger pollen reserves than do single-queen colonies. These large pollen reserves are desirable for good winter-



Wish we could tell you what the scale reads. Guess might be close to three hundred pounds.

ing. Such colonies consume more honey over winter because of the brood they are able to rear.

"Honey yields are greater from colonies that consume a large amount of stores over winter than in those that consume less. In 1947, 29 colonies that consumed more than the average showed a yield of 49.4 pounds of honey more than a similar number that consumed an average of 14.4 pounds less. When we add their greater consumption to their greater gain, the former actually stored 63.8 pounds more honey than the latter. There is no profit in saving what ultimately represents a loss.

"Colony populations must be built before the flow if a crop is produced, not on the honeyflow. Two-queen colonies take advantage of the principle that the production per unit number of bees increases as the population increases. Thus, they exhibit not only greater colony gains but also greater gains per bee that is reared."

One of Farrar's yards, piled with crop. No matter what your management plan you can't pass up an attempt to equal this record.

Management of Supers in Relation to the Crop

by E. H. Adee

IN our management of bees, the use of supers plays a very important part. Supers have a twofold purpose, the first is to give room to the hive to keep the bees from swarming, and the second is to give the bees room to store honey.

A good beekeeper must keep a working check on his bees to know their condition in regard to feed and to discover how rapidly the hive is building up in strength. If you have saved enough honey to give each hive sufficient feed to carry on its normal functions without danger of starvation, you can save yourself a lot of work in your operations. It will not be necessary to examine all hives, just a few at the beginning of each day's work to get the perspective or general run, and from the strength of these colonies judge the rest from the population standpoint. If your examination shows that a hive has seven or eight fair frames of brood with a good covering of bees, add an extra super to it and to all others you judge are of comparable strength. (We use full-depth, ten-frame supers). Until swarms or hives reach this strength, do not super, as a super on a hive that is not of sufficient strength retards build-up.

After your first super has been added and you are making your next run in ten days to two weeks, another super should be added, as the population is building up rapidly and the hive will be congested and be in a swarming condition before you get around again. It is far easier to keep this condition in check than to correct it after you let it develop. The old saying of "a stitch in time saves nine" will apply to "a super in time will save a swarm."

Hives will vary as to the number of supers needed, but the average hive will need from two to three supers above the two brood chambers and a few of the better ones can use more. If you have good queens and supply your hives with plenty of honey and pollen, including pollen substitutes if necessary, you will have a real need for supers.

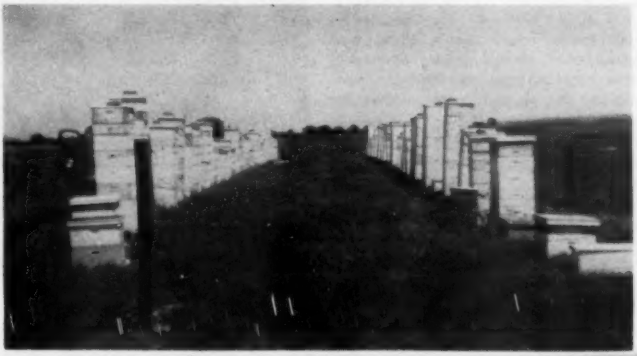
Most of the supers should be on from one to three weeks before the honeyflow for the sake of room so that when the honeyflow starts you will have sufficient supers on to take care of the first part of the flow. As the flow develops keep a good check on the hives to determine the density of the honey and the rate of the flow. If your flow is rapid and the nectar very liquid more supers will have to be added to give the bees storage room for evaporation.

I know that all of us have put on extra supers as the flow develops and then have had it fail and we kick ourselves for oversupering, but did we oversuper? Since we do not have the power to peer into the future, I would say no. In our working and feeding the bees to build them up we were getting them in shape for a good crop. All our work is based on that assumption, so wouldn't we be justified in stating, if our crop was not up to expectations, that we had gone to more work than necessary to build them up, let alone putting on more supers than needed.

A person keeping bees has to set the stage for a bumper crop each year by doing everything possible to get it. Mother Nature quite often fails to cooperate, but the difference between success and failure is the ability to have everything in readiness for the flow when it comes and get that bumper crop in the hive when it develops, and if it does not develop you will in most cases get enough of a crop to enable you to hold your outfit together. Enough honey is lost by many individuals, through lack of super room or not having their bees built up to sufficient strength to harvest the crop, to mean the difference between a profit or a loss. The wishbone will never take the place of the backbone.

Nebraska

The kind of year we always hope to get.



Requeening in Relation to Crop Production

by Chas. C. Hansen

THERE are two phases of commercial beekeeping which have a direct bearing on the net returns to the producer.

The first phase is production and the second is the sale of the products. The operator who sells his product to a bottler or through a cooperative association has little that may be handled by himself.

It is our duty as commercial operators to study every point of our production. My operations have been from the banks of the Rio Grande to the Canadian border, and I see very little difference in a general way.

I have checked my methods whether it be for sales of bees or honey. My queen breeder friends have nothing to do with what remarks I make; they are results of years of checking. I believe that every colony must be headed by a good queen and that is almost always a young queen. I feel we should define the term—a young queen. That all depends—if you are producing package bees and expect to have a honeyflow later, the queen is very old in 12 months, but if you are in the north central states the queen may give you an average of two years.

For several years I used a system to identify the queen and tell her age. I killed 75% of the queens and let the top 25% go into the next season. I was thereby able to tell my corresponding yields and amount of labor on the new queens compared with those carried over. I found I had a better yield on the young ones and my swarming troubles and queenlessness on the 25% top old queens were above the 75% young queens.

Labor today is very high in relation to other costs and sales and should be considered first in our plans. I now requeen 95% plus and no longer consider my cost of checking on a per colony basis worthwhile. I believe my swarms are now down to 5% or less under our heaviest flows. I am assuming that the commercial operator practices putting on the supers soon enough and not too soon because that can cause the brood nest to become plugged with honey if the queen is allowed to work too much above the regular brood nest. It is always best to have a centered brood nest at the proper time of the season.

I know we are all prone to put off buying queens and the labor of putting them in. I may add that I like best to kill the old queen at least one day before I introduce the new queen and I use the push-in screen type cage which I make out of ⅛ inch mesh hardware screen. It is removed in three days. I then have a lot of eggs inside the cage which is 2x3 inches. I have 90% or better acceptance.

I am not partial to any race of queens or care whether they are hybrids. The one thing that is a must for good results is to have a queen that will lay enough eggs. I feel the viability of the eggs is of first importance. Young queens will have brood enough to provide plenty of bees to get the honey when it is available. If the queen breeder knows his genetics this will be included in his program.

The commercial operator may follow all good methods but if there is no honeyflow there is no crop. Here is a big saving in the feed bill. I prefer off-grade honey to sugar with sulfa. There is an economy some may follow but don't kid yourself, you can't starve your bees and your operations into a profit. Know your range, and if it is not there you must go where you think it is or get out of business.

I always use top ventilation to protect the combs from melting down. This also allows a bigger force of fanners to be converted to honey gatherers. Top ventilation will cure your honey in less time. There is always economy when the operator can use the supers twice on the same flow. The quality of honey is often improved if the table quality is not allowed to be mixed with various flower nectars.

My crop is removed with acid boards and placed on drip boards which are wheeled off the truck into the honey house. For the past several years my trucks have been screened. This prevents a lot of robbing of the wet supers and also protects the honey that is being taken off. I know it costs more to build this screen body. The wind resistance calls for more gasoline, but dirty combs are not the best.

(Please turn to next page)

Hansen's truck loaded with 185 two-story colonies going out to alfalfa seed pollination after the crop of honey from Hubam sweet clover.

There is no melting down of honey enroute to the honey house. If caught in a rain that difficulty is taken care of. I don't tie myself down to a certain number of trips but try to meet the situation. It is always a good plan to be up with your work, if possible a little ahead, so if something happens you don't get into big trouble.

There is a certain number of colonies that a man can take good care of. This number should be enough so that he can make a living from his efforts, and he should have enough to keep him fairly well occupied. There is also a number that may be so big that it gets into the bracket of diminishing returns.

Honey production may be summed up in four parts: young queens, enough supers, good flows, stay up with your work economically.

Texas

Quick and Easy Honey Harvest

by Loren F. Miller

ARE you short on supers? Short on high cost harvest help? Does cold weather catch you every fall? Do you have back troubles from heavy lifting? Honey house full of bees?

This takes in all of us but there is a system that reduces these problems to a minimum.

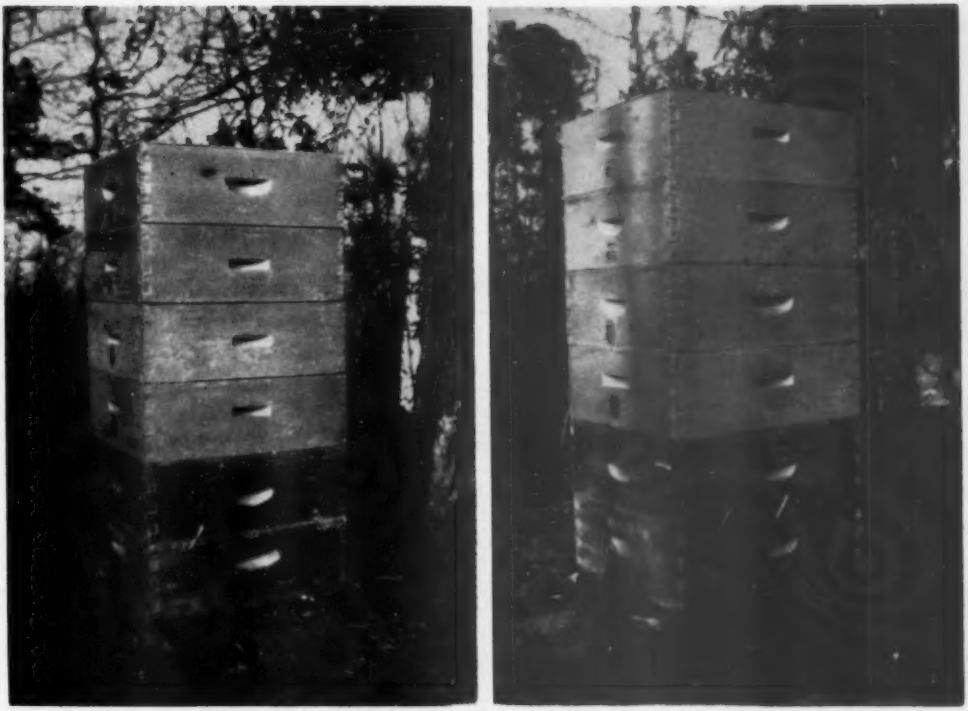
Eleven-frame shallow supers are in large use by many commercial honey producers and merit much wider use. In addition, the use of Modified Dadant extracting supers from the bottom board on up has proved so satisfactory to us that we will never return to the Hoffman size combs for supering and harvesting the crop.

To start the colony, we use one eleven-frame, 6⅝ inch depth shallow super nailed to a bottom board for installing a package or developing a nucleus. Then add another shallow containing several frames of held-over honey for building up. Two weeks ahead of the main flow the third shallow is added and generally is full of brood and honey by the start of this main honeyflow. Then two or three more supers are put on for catching the crop, making six or seven in all. Usually as the season progresses, the queen is crowded back down into the two bottom nest shallows thus automatically reducing brood rearing space at the late summer time when fewer bees are wanted.

Now the Advantages

First, the greatest practical benefit is ease of handling. The wide and shallow design is well balanced for the average person, yet contains

Two views of Modified Dadant shallows used as brood nests building up.



Two colonies with Modified Dadant extracting shallows used throughout.

enough honey for quantity operations. All supers above the brood nest are run with ten frames and gross 55 pounds against 75 pounds for a standard deep super with nine combs. This lighter weight makes it possible to handle much more honey a day with less fatigue and less danger of back or other injury. Since the units are wider, the colony stack is lower making lifting less hazardous. Also in the apiary and honey house, young boys and women find the shallows easy to handle, which is desirable when the business is a family project. There is less danger of breakage of shallow combs when a heavy super is chunked down too hard, and there just isn't so much chunking down when there is less strain.

The second point of favor is speed in driving bees out with carbolic acid. Even on cool, cloudy days an acid cover will completely clear all bees out quickly with none of that 2-inch fringe of bees found on the bottom of standard combs. One loses a lot of time (which costs money) waiting for bees to get off 9-inch combs especially on short fall days. Or we become impatient and bounce the supers, maybe breaking combs or ears, or else haul them home to fill the extracting room with bothersome hitchhikers. Acid covers can be removed more quickly and put on other colonies. This saves acid and reduces interruption of the bees' work. It is a cold day when phenol fails to work perfectly on shallows.

Shallow combs are ripened sooner and better capped, so extracting can be started earlier and finished during hot weather when all goes smoothly. Earlier and quicker extracting puts the supers back on the bees for refilling. So, fewer supers are required. This type comb uncaps more easily by hand or machine and extracts with far less labor cost per pound. There is less breakage in the extractor and fewer drone patches filling in holes which means less expense in replacing with foundation.

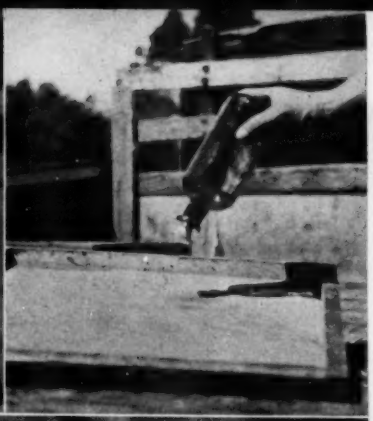
I find it easier to remove the good early honey ahead of the fall feed crop since there is less room for bees to scatter dribbles of off-grade, high moisture nectar.

While not a harvest advantage, the bees do winter better due to greater ease of crossing over from empty combs to full combs. That inch or two is critical in zero weather.

Toward the close of the main flow we stack in the shop one super of solid honey for each colony for winter before fall pollen arrives in quantity. Many bees winter starve because the hive is full of pollen thinly covered with honey and the operator is fooled by the heft of the hive. We strip the hive down to the two brood nest shallows in the fall in preparation for winter. Then one super of the earlier pollen-free honey containing 35 to 40 pounds net, is placed between the two nest boxes, assuring plenty of stores.

Uniformity of equipment and simplicity of operations in any business means profitable mass production. In keeping books over 10 years on both types of equipment I see no difference in the bees' behavior. The benefits with Modified Dadant shallows throughout are easy and quick handling and reduced costs.

Georgia



Removing Extracted Honey with Acid

by G. H. Cale

FOR taking off extracted honey pure carbolic acid is ideal. Use a chemically pure, crystalline acid. It is obtainable in five-pound tins or pound bottles. A pound will do for a fifty colony yard with four or five supers to the hive. Dissolve the acid in its container in very hot water. When it is liquid add about a half cupful of water to five pounds. Shake well.

Make acid boards of a tin sheet cut the size of the hive top, and nail it to an inch rim of wood. Under the tin before nailing place a thin cloth. Paint the top black. Five to ten boards will do for a fifty colony yard. On hot days you will use fewer boards than when it is cool.

At the yard, sprinkle the boards with acid using an ordinary sprinkler bottle top which you can get in the five and ten or hardware stores. Douse the cloth on the inside of the board with acid but not enough to drip. Be careful. If a drop of acid hits your skin wet the area with grain or wood alcohol. Water helps.

Now follow the pictures. Place the acid boards on the top supers and smoke under them well. When the boards are all on, start taking off at the first one and so on in rotation, dropping the boards on the next supers as you go. If the bees start out into the air use fewer boards. Don't let them fly out and mill around. When you are through the bees should be only clustered quietly outside. When the honey is on the truck pull a cover over it as you stack. The acid smell helps keep out robbers also.

It takes about an hour under good conditions to get a load. When the supers are unloaded leave the piles uncovered for two or three days if you can; at least overnight. The acid is very volatile and will soon be gone.

American Bee Journal

Winter Removal of the Crop

by Lee R. Stewart

LAST season our honey house was not available even for storage until in December. As a consequence, we were unable to do any extracting or even take off any honey until midwinter.

The bees told us in August that we would have a mild, open winter, which was in our favor. Moreover, we had a heavy fall flow of good honey that blended nicely with our clover. By prudent top supering our brood nests were crowded to the bottom boards. We didn't have to worry about stores in the brood nest and food chambers. If you have only a clover flow it would be necessary to examine the brood nest before winter and if your fall flow is radically different in flavor and color from your summer crop it wouldn't be wise to mix them.

The hot fall days cured our honey until it had the best body of any we ever produced. Cold weather further aided this curing by "freezing out" the moisture still left in the honey. The cold honey was placed in a hot honey house some six days. You would be surprised at the moisture that was eliminated.

It was a pleasure to go to a yard on a cold day and load our truck as rapidly as we could carry the honey to it with no bees or robbers to fight nor carbolic boards or escapes to manipulate. Most of the clusters were down, a few were up and a few were divided. In the ones that were up, the supers, with cluster, were set off, the honey below removed and the cluster set back on. With divided clusters, the top one was set off, honey removed down to the remainder of clustered bees, and then the top set back on. In a few cases there were bees from top to bottom, as most colonies were very strong. On a day when bees could move freely we shook off these scattered bees and brushed them off the combs. But we didn't have too much trouble as our supers (four to eight per colony) were full and in most cases sealed. Bees will not congregate on sealed honey, particularly in cold weather. In the case of distant yards and bad roads, winter removal of crop would not be practical as there will be some colonies you cannot strip the first trip. And in case of a sudden freeze like we had in November, the mortality will be rather heavy as the scattered bees in the tall stacks will freeze before they can reach the cluster. The first freeze always kills a lot of old, worn-out bees but our sudden November freeze also got a lot of good young bees. For the remainder of the winter our loss was not more than a dozen bees per colony. And on April first, just average colonies had seven frames of brood.

There will be some granulated honey, but not much unless your honey is not ripe or above an escape board. It is a pleasure to leisurely extract without robbers trying to get into the honey house. Neither do you have to protect combs from the wax moth. It may be impossible to check your brood nests thoroughly but with a late honeyflow we always have this trouble A glance at the cluster should give you sufficient information regarding disease and the queen, and hefting will indicate the stores. For many years the long beards have admonished against disturbing the winter cluster and seal. We have always done both with no ill effects, even had queens on the ground in January. For, if the bees can move at all, they will generate enough heat to re-cluster and what better ventilation would you want than a broken seal on an inner cover or a food chamber! However, a disturbed cluster may start brood rearing. Of course, not even a beekeeper is going to be out in the bee yard in zero weather.

The best feature I find about winter extracting is the resultant orderly market. Many fellows will rush their extracting even before the honey is cured, fill a truck load of containers and start out across the country like an old-time medicine show. They have no regard for established prices and as their honey is of poor quality they ruin the market in every place they stop. They dispose of their crop before the honey season really begins and as a result their home territory has to depend upon some other source for its honey until another crop. Our late extracting lost us some early sales but that won't happen again as we will have a carry-over another year to take care of the early demands. We will also have the honey our customers want and like all twelve months of the year. If everyone did the same honey sales would increase 50%, as many people will use a local honey, the kind they know and like, the year round but will not buy a foreign brand even though it is just as good or better. And why should honey be a seasonal product any more than potatoes? It is questionable whether the small producer can ever compete in the larger markets with the big packers, particularly the cooperatives who cut prices at the expense of their members who supply the honey. But he can build up a year-round business and hold it against all competition in his own territory.

Late removal of the crop and winter extracting necessitates a honey house that can be kept warm day and night; outyards easily accessible and not too far distant; and a fall honeyflow (if any) not too different in color and flavor from your summer flow. As advantages we have honey of better body, no carbolic boards or escapes, no bees or robbers to fight in removal or in the honey house, rapid removal of crop, no wax moth to fight, and an orderly year-round market. We have the disadvantages of inability to check thoroughly the brood nest, an insignificant amount of granulation, and a very possible inability to have combs cleaned and dried before storing.

Indiana

"Bringin' Home Th' Bacon"

by Carl E. and Eugene Killion

TO any person other than our own immediate family the above title would not be appropriate without some explanation. We have been using the above remark once each summer for over twenty-five years, except during the few years of failures and near failures. When the superwork is advanced far enough that we are sure of a crop, we have our annual celebration. Upon reaching home from one of our apiaries we call the family together in a sort of basketball huddle and in a very loud voice we say "Bringin' Home Th' Bacon." At the same time we throw our bee hats upon the floor.

It is indeed a grand feeling to watch the superwork progress from empty sections or plain sheets of foundation into beautiful snow white sections of comb honey. One is able to see the rapid changes in superwork each time a colony is examined. Each time a super is handled we check to see whether it is advisable to reverse ends with it or not. We find that the front row of sections is never drawn out as fast as the rows toward the rear of the super. Just before the cells are sealed is the proper time to reverse.

The proper supering for section comb honey is the most difficult part to describe of anything connected with this type of production. After giving the first super, we must be governed by weather conditions, colony strength, honey plants, and other factors before any additional super is given. We would prefer to have the bees a little ahead of us on super work than to give too much room too far in advance. As the work advances in each super, it should be moved farther and farther from the brood chamber. We try to eliminate all unnecessary travel stain on the cappings.

Some colonies build more comb between supers or between super and hive body than other colonies. When supers are found with brace comb built between them, the comb is scraped off with a hive tool. There will still be some comb left in the openings between the sections and attached to the edge of the separator and a pocket knife is carefully used to cut this comb away.

Each super is removed as soon as it is completely finished or sealed. An examination of a super from the top side does not always show when it is completely finished. The super must be viewed from the bottom to make certain the lower part of the section is sealed. We prefer to use the bee escape to get the bees out.

When the super is ready to be removed, it is placed on top of all the others so the bees can clean up any liquid honey that may be on the sections. It takes only a few minutes for the bees to remove this liquid honey.

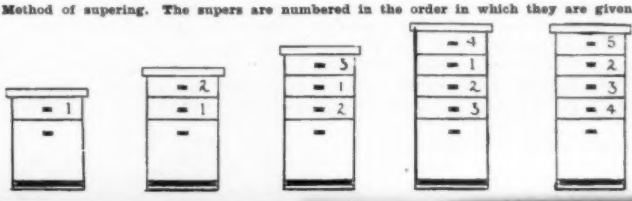
In starting the operation of removing the finished super, we blow several puffs of smoke across the tops of the sections. These should be gentle puffs, not blasts that will carry soot into the sections. The smoke will cause the bees to start downward. The super is grasped firmly and many of the bees are dislodged by a few shakes in front of the hive.

The escape board is now placed in position on the unfinished supers already on the hive and the finished super placed on it and then the cover, if the bees are in the shade. If the bees are in the sun, a ventilator board or ventilating rim, to prevent the possible damage of comb melting down in extremely hot weather, is put on the super before the cover. We make sure not to leave any openings above the escape board where the bees can get through.

Just before leaving the apiary each colony that has supers over the escape board is checked. The cover is removed and in most cases the ventilating rim also, to permit the removal of a cluster of bees. This last check removes quite a number of bees which would otherwise have to go down through the bee escape. We find very few bees left in the supers 24 hours after placing them over the escapes.

When reaching the shop, the supers are placed directly into the comb storage room. We might call this our dehydrating room because we expect to remove all excess moisture from the honey as quickly as possible. The supers are criss-crossed to permit free circulation of air throughout the entire room. It is in this room that we have our Humidry machine, our large fan running, and we can add additional heat when needed to hurry the removal of moisture. We are finding that we must limit our drying to a certain degree. After the moisture is lowered to a certain per cent, we should hold it and not let the honey become too thick. This is not so important for section comb as for shallow frame honey which is to be cut and packed in jars. When the honey gets too thick, the comb will tear as it is being cut. Illinois

Method of supering. The supers are numbered in the order in which they are given.



Management for Bulk Comb Production

by Newman I. Lyle

THERE are many lovers of fine honey who like to chew their honey. To them liquid honey is not entirely satisfactory. The beekeeper can cater to this preference by producing bulk comb honey with a minimum of labor and expense.

The advantages of producing bulk comb are: First, shallow extracting equipment is used; second, management is similar to the production of extracted honey; and third, bees will work and store honey on a slower flow than in section supers. However, there must be prospects of a good flow before deciding to produce bulk comb honey.

Colonies at the beginning of the main honeyflow must be strong and have a proper balance of bees of different ages. There are recognized practices for building up colony strength by a determined date as so ably written by Mr. Shaefer in an earlier issue. For real crowding of bees in supers, to get the maximum finished honey per super and per colony, Dr. C. C. Miller's direction, "To have a young queen of the bees own raising in the hive," is still the best advice I know. When the season or other work does not allow time for this, a young shipped-in queen introduced early and laying well at the time of the main honeyflow, is the next best bet. For method of introduction I refer you to my article in the May Journal.

For the brood chamber we prefer a one and one-half story Modified Dadant hive or a two-story ten-frame hive with a minimum of drone comb. The brood chamber units should be reversed early in the spring and again just before the honeyflow. This manipulation will tend to keep the brood nest free of honey. A prolific queen needs room to produce the large worker force necessary for maximum production. Colonies with small brood nests or old failing queens will not be good producers of bulk comb honey.

At the time of reversing the brood nest just before the flow, some colonies will be found to have five to seven frames of brood in both top and bottom bodies. Colonies with this tendency to "chimney" should have the youngest brood worked down into the lower hive body and the old sealed brood placed in the top body. The bees will tend to work the entire super better if this is done.

Colonies with old queens, even though they are still vigorous, are not the best for comb production. Such colonies are liable to swarm or when the old queen slacks in laying, pollen will be stored in the supers because there is not enough brood being reared to consume the pollen as it is harvested.

To control swarming the first need is a young queen; second, plenty of room for the brood rearing in a clear brood nest; third, adequate ventilation; fourth, supering in time; and last, to remind you again, a young queen.

The supers should be prepared with foundation a short time before they are needed. We like to prepare the supers the same day they are to be used. The thin surplus foundation then has less chance to become wavy or break. However, if there is a warm, clean, even temperatured but not too hot place to store the supers, they may be prepared some time in advance. The foundation must be firmly attached the entire length of the top bar, so that it is impossible for it to loosen. The straighter the sheets of foundation, the straighter the resulting combs of honey, provided the hives are carefully leveled from side to side and front to back.

When the bees start to whiten the combs along the top bars of the brood frames, at the beginning of the main honeyflow, the first bulk comb super is placed on the strong colonies where the brood extends from one side of the hive to the other. If the bees do start working in only the center of the super, one-half of the frames should be turned around as a unit on one side and the other half on the other side. This places the drawn comb to the outsides of the super. This manipulation aids in a more even finish. When work has nicely started in the first super, the second super is placed on top; when work has started in it and there is a good prospect for a continued flow, the first and second supers are reversed and a third is added on top. It is important that supering be stopped early enough to force the bees to finish the supers. It is well always to keep in mind the fact that: "Most beekeepers super too little early and too much late." Some colonies are naturally better comb builders than others. These colonies should be the ones operated for bulk comb production. Those which are reluctant to draw foundation should be given drawn combs and operated for extracted honey.

When the finished supers are to be removed from the hives, the joints should be broken, preferably the day before, so the burr combs can be cleaned and dried by the bees. Honey from the broken burrs running down over the combs is not only messy and unsanitary but is excellent "seed" to start granulation when the honey is packed. After the peak of the honeyflow, partially filled supers should be stripped off the slow colonies and given to those that are good finishers. The slow colonies should be given drawn combs for extracted honey production.

Iowa

HONEY FUDGE CAKE

Preparations. Have shortening at room temperature. Grease two 9-inch layer pans or 10x10x2-inch pan, cover bottoms with waxed paper, and grease again. Start oven for moderate heat (350°F.). Sift flour once before measuring.

Measurements

Measure into sifter:
2 cups sifted cake flour
1½ teaspoons soda
1 teaspoon salt
Measure into bowl:
½ cup shortening

Mix in small bowl:
1¼ cups honey
2-3 cup water
1 teaspoon vanilla
Have ready:
2 eggs, unbeaten
2½ squares unsweetened chocolate melted

Now the Mix-Easy Part

Mix shortening just to soften. Sift in dry ingredients. Add ½ cup of the liquid and the eggs. Mix until all flour is dampened; then beat 1 minute. Add remaining liquid and melted chocolate, blend, and beat 2 minutes longer. Batter will be thin. (Count only actual beating time or count beating strokes. Allow about 150 full strokes per minute. Scrape bowl and spoon or beater often.)

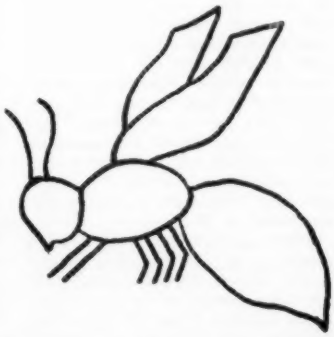
Baking. Turn batter into pans. Bake in moderate oven (350°F.) about 30 minutes for layers or about 40 minutes for square cake.

"BYATI"

Beekeeping is one of the oldest and most highly respected industries of man. Honey, which was the main sweetening in ancient Egypt, was a monopoly of the Egyptian kings. The kings' bees were kept on barges on the Nile river. The barges followed the flowers which bloomed along the river banks.

One of the titles of the king, as king of Upper and Lower Egypt, was "Byati," or the "Bee Man."

In Egyptian picture writing, the hieroglyphic which expressed his title looked like the drawing to the right.



Charles G. Doehrer
California

YELLOW SPIDER FLOWER

The spider flowers have long been famous as bee plants. The best known is the Rocky Mountain Bee Plant which grows wild in the region of the Missouri River watershed.

The yellow spider flower or golden cleome, (**Cleome lutea**) was little known until brought to attention from our honey plant test garden. It is native to the southwest from western Nebraska to California and is usually found in very dry areas. When brought to the test garden it made a fine showing, reaching a height of six to seven feet with as many as 300 flower clusters on a single plant. So much interest developed that several of the seed houses now offer it as a garden ornamental.

The bees visit the flowers freely over a long period from July till frost and apparently find an abundant supply of nectar.

From the Honey Plant Test Gardens

by Melvin A. Pellett

THE public should be made more conscious of the value of honey plants. A good honey plant is one which serves some other purpose as well as any plant that can be found and at the same time adds to the livelihood of "Man's Most Useful Insect."

During late years the need for conservation plantings for wild life "to restore the balance of nature" is coming into public consciousness. During the past decade great strides have been taken in education and practices of soil conservation. During the same period the great need for more bees for pollinating services is gaining wide recognition.

Yet so far, in most plantings "to restore the balance of nature" the livelihood of the busy bee is not given the deserved recognition. In many conservation plantings, more plants might be used to provide a continuous nectar flow and still serve other purposes as well. If the value of honey plants were to be fully recognized in conservation programs, parks, roadsides, farm and home plantings, this would mean a great advancement toward stabilizing bee pasture in many localities and with it would bring a correlating increase in the presence of bees for pollination.

Selection of anise-hyssop with longer flower spikes.

A selection of anise-hyssop derived from sports appearing in some of our original plantings, tends toward a heavier stem and a more vigorous plant with a longer flower spike, thereby extending the peak of bloom later in the season.

Anise-hyssop (**Agastache anethiodora**) was native to the Middle West. It was recorded as a honey plant back in pioneer days when it was estimated that an acre of anise-hyssop would be ample pasturage for 100 colonies of bees. With the advance of civilization it almost entirely disappeared from our native flora. More recently it has been planted to some extent for a honey plant. Anise-hyssop does not compete well with our annual weeds in many situations and may require some cultivation to survive. Reports indicate that it does not secrete nectar freely in all localities. Where it does best, it is a honey plant second to none, which the bees work consistently from daylight to dark over a long period, beginning in June and lasting some seasons until frost.

Several years ago my father noted some sports in the plot of anise-hyssop, having longer flower spikes. These plants he segregated into a row by themselves. Further selections have been made and a strain is emerging as a rather distinct variation from the common anise-hyssop. The characteristics are not yet fixed as there are some variations within the strain. This selection is very definitely larger stemmed and with longer flower spikes. It apparently has more possibilities as an ornamental, appears more vigorous to withstand competition and may be longer lived. The bees work it just as eagerly.

Hercules'-club. We were much taken with the unusual appearance and attractiveness to the bees of the Hercules'-club (**Aralia**) which first came into bloom last season. One shrub nine feet tall had two large terminal flower clusters making in effect a total flower cluster five or six feet across. It is hard to describe the numbers of both honey bees and wild pollinators attracted to this small area of bloom at times. It seemed they literally swarmed over the flowers. The bees worked the flowers constantly and sometimes in very large numbers from the time of the first opening, August 12 until the blooms faded at the end of the first week in September.

Hercules'-club, topped by large flower clusters.

Among the new plants added to the honey plant gardens this spring are four of the earlier maturing strains of bushy lespedezas which were sent to us by the Soil Conservation Service. The bushy lespedezas, **bicolor** and **cyrtobotra**, have been in the gardens a decade or more and never fail to attract the bees freely during their blooming period in late summer and fall. **Lespedeza bicolor** is now extensively planted in some southern states for use in erosion control and wild life conservation. It yields heavily of seed that is a preferred food of quail. Bicolor will not usually mature its seed in the North, so is of use for bird feed only in the middle south and southward. The quest now is for a lespedeza which will serve the same purpose in the North which bicolor serves southward. If this can be developed we might expect it to be widely used in the wild life conservation programs which are gaining momentum. The bushy lespedezas tried here are good honey plants.

Steel Strapping for Moving Colonies

by Roger A. Morse

Assistant in Apiculture, Cornell University
Ithaca, N. Y.

THE problems encountered in general beekeeping operations are manifold, and not least amongst these are those connected with moving. During the spring and summer of 1951 it was necessary to move seventy-five two-story colonies of bees, belonging to the university, six times. Knowing that these moves would have to be made, an effort was made early in 1951 to cut down the time and cost involved with moving.

Manufacturers producing steel strapping were contacted with the final result being that some strap and tools were obtained from the Brainard Steel Company. This company also cooperated by providing the pictures of the strapping tools used in this article.

The handling of the strap at first was cumbersome but with a little experience soon became easy. It was best to cut the strap to the desired length before going to the outyards. One piece of strap per colony is used except with new equipment. New hives and bottom boards are very slippery and either two pieces of strap must be used or the strap must be extra tight, often to the point where it might damage the bottoms and covers. With this point comes the first consideration and advantage of this material. The strap is cut twelve to fifteen inches longer than the distance around the hive. In this way, if the seal is properly placed and the strap cut correctly at the end of the move the same piece of strap may be used many times. (Some of that which was used six times in 1951 will be used again in '52). The cost of enough strap to go around an ordinary ten-frame, two-story colony is five cents. In other words the cost of the strap per colony for each of the operations here was less than a cent per colony.

The biggest factor in the favor of steel strap is the time saved. It takes a man one minute to put the already cut strap around a colony and to put the seal in place. In timing the operation of stapling the same size colony it was found that about two minutes was involved in addition to the awkward bending, etc., involved with staples. However, even more time is saved when one finishes the move, for at that point it is only necessary to take one snip with the shears and the colony may be manipulated in any way the beekeeper desires. It was found best to let the cut ends of the strap fall where they may and when ready to move again the loose ends of the strap were picked up and a new seal put in place. This operation takes less than a minute. (The cost of the seals per colony is almost negligible). Some colonies were packed for winter this year with the ends of the strap under the tarpaper pack. In this way they will be ready to go to the orchard early in the spring and yet they may be manipulated before that time.

The two tools used for putting the strap in place are the tightener and the sealer. Some companies make a combination tool but it was found that individual ones were easier to handle. The cost of the two tools from the Brainard Steel Company is thirty-five dollars. They are not purchased but rather loaned and the person borrowing them keeps them for as long as he wishes. The tools always have a refund value if the beekeepers wish to return them. Some thought has been given to having a cooperative or some similar organization keep the tools and a supply of strapping. The tools may then be borrowed when needed by the beekeeper for a nominal fee.

It seems as though no labor saving device without disadvantages can appear. And this is true with the strap as well as with other things. Ordinary covers cannot be left on the colony at the time of moving. Moving screens are hard to keep in place because they may slip, especially if they are hit. Factory built bottom boards will not stand the pressure put on them by the strap. Since many beekeepers build their own equipment these are points which might be kept in mind when they design their hives, covers, screens and bottoms. These factors might also be considered by the manufacturing concerns, especially since so many beekeepers have inquired about strap. In some cases the manufactured corners shown were used. Pieces of strap iron 1/16 inch thick, ¾ inch wide and 6 inches long were put into dadoed grooves on the bottom edges of the bottom board, also with satisfactory results. Moving screens require additional support through the middle at the point where the strap crosses them.

In conclusion it might be said that two beekeepers in this area borrowed and used the tools on loan to the university and moved over three hundred colonies in the above manner. The total opinion here is that steel strap has more advantages than disadvantages and will probably replace the stapling method.

Steps in securing the steel strap: →

Left to right from top of page—

The first step is to make a loop with the strap and place it around the colony.

Next, the colony is lifted from behind and the strap moved to the middle of the hive with the left hand.

Then the tightener is put to use. Note the seal just ahead of the tightener.

Next, the seal is crimped into place.

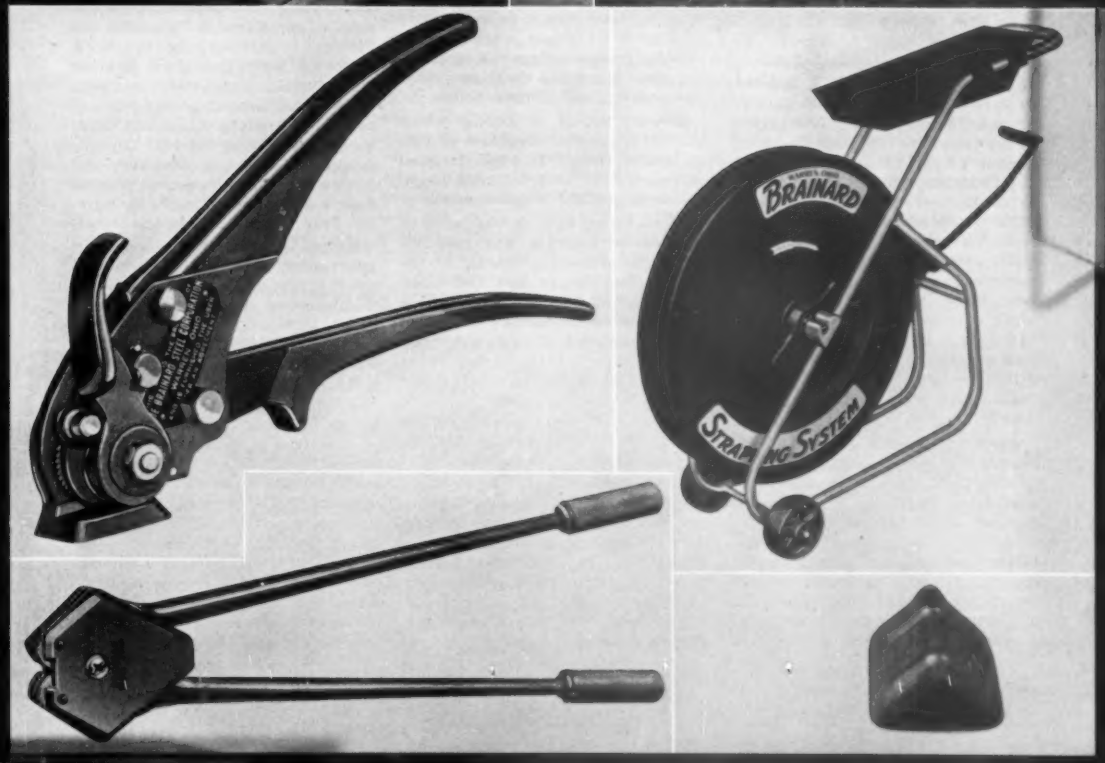
Here are two colonies ready for moving. The bees were moved with open entrances.

After the move, the strap is cut and let fall where it may. By picking up the ends it is ready for reuse.

The two pictures to the left below show the tightener and below it, the sealer.

To the right is a carrier for coils of strap which may be used, but it was found to be easier to cut the strap to desired length before going to the outyards.

Below the carrier is the corner protector which was used in some cases with good results.


BRAINARD
STRAPPING SYSTEM

Sports College - A Honey of a Project

by Roy A. Grout

Lloyd Percival, founder, promoter and head coach of Sports College, keeps the postman busy. Millions of athletes have come to know him as "The Head Coach" although they have never seen him. (Photo courtesy Paul F. Poce, Product Research Dept., Sports College)

THE only organization of its kind in the world, Sports College was launched in 1944 on a nation-wide scale as a joint project of the Canadian Y.M.C.A. and the Canadian Broadcasting Corporation. Its phenomenal growth resulted in the Y.M.C.A. discontinuing this activity in 1946, and the College now is supported by a voluntary body called the Sports College Association. Dr. Arthur H. Steinhaus, a leading American physical educationalist, has called Sports College "the most advanced youth welfare program in the world."

Six specific services are performed by Sports College. (1) Continuous research develops the latest discoveries in health, training and playing techniques. (2) Through the cooperation of the Canadian Broadcasting Company a weekly radio feature conducts an educational program. (3) Free assistance is offered to any individual or group working with youth. (4) Working under direct supervision, testing groups try out new ideas; information is passed along only when it has been proved. (5) Over a million pieces of literature of benefit to athletics have been distributed. (6) A question clinic deals with individual problems of its members.

Research by many physical education authorities, including such men as Dr. T. K. Cureton, famous athletic scientist of the University of Illinois, C. H. McCloy, of the University of Iowa, and Dr. Y. S. Cristiansen, of Denmark, has indicated that diet is one of the most neglected aspects of athletic efficiency. Such investigations have determined that a change of diet can affect, in a short time, morale, energy, resistance to fatigue, and endurance. That's why Sports College preaches nutrition.

Since tests indicate that athletes must be lean, and that they function best when using carbohydrates for fuel, Sports College advocates little fat in the diet, and none at all on the day of competition. This would include not only fatty meats and fried foods, but also such things as chocolate bars, milk (except skim milk), thick soups and gravy. The pregame meal should be eaten three to four hours before activity. Still another recommendation is to schedule the big protein meal just after the activity, rather than before it.

Another aspect of diet on which the College places emphasis is that of special energy jack-ups designed to prepare the body for hard physical work and aid in quick recovery.

When Sports College was called in to examine, evaluate and help improve the physical efficiency of the Detroit Red Wings last December, diet and special jack-ups were among the recommendations. Such athletes as Red Kelley, Sid Abel, Ted Lindsay, Gord Howe and others were told to eat special foods to replenish the energy used in games and practices. All who followed advice stated they felt stronger, played better and recovered more quickly.

Such jack-ups are particularly valuable to the schoolboy athlete, who must recover fast from a hard game or practice to concentrate on his studies. The effects of physical activity are alleviated by this prescription:

"Juice of five or six oranges mixed with two or three teaspoonfuls of honey, taken after activity. Lesser amounts to be taken on the hour for four or five hours before the game and during intermissions."

Such a preparation helps replenish the blood sugar content, which decreases during physical effort.

Not only are noted coaches, medical experts, athletes and other authorities consulted on diet, but a panel of consultants also presents its views. Numbered among the members of this panel are such men as Dr. Arthur H. Steinhaus, former chief of the Physical Education and Fitness Department of the U. S. Office of Education; Jack Kramer, professional tennis star; Dr. John Seeley, prominent Canadian psychologist; Sir Adolphe Abrahams, chief medical officer at the 1948 Olympic Games; Bo Ekelund, chairman and director of the National Swedish Sports Federation; Dr. T. K. Cureton, University of Illinois; and others.

Hence, every available source of information is culled. Then the entire program decided upon is tried on members of an athletic testing group, in which its actual effect on the performance of the individual can be measured. A majority of the members of these groups are track and field athletes. Far from suffering as human guinea pigs, members of the testing groups have flourished. They hold hundreds of championships and numerous records in track and field. For example, George Lynch, who received the highest rating in physical fitness ever awarded at the University of Illinois, established a senior cross-country record last fall at the age of 19.

Sports College is engaged in a project promoting honey as an ideal

energy food. They have documented evidence that honey was successfully used as a training food by many individual athletes and teams in Canada. In track and field alone, athletes using honey have won over 1,000 championships and broken 300 records. To this can be added such "specials" as the use of honey by the Detroit Red Wings; World Marathon Champion Swimmer, Jerry Kerschner; the Olympic Paddling Team 1952; the Toronto Track and Field Club, Canadian Champions for 1950-51; and many others.

Rate Honey High As Energy Fuel For Athletes*

Honey is an ideal natural food for athletes and an unexcelled source of quick and efficient energy, three years of special study by the Sports College research department has shown.

It contains a natural mixture of various sugars, including fructose (levulose) and dextrose, which are two of the most efficient sources of energy.

These tests, conducted in close cooperation with the Testing Groups, indicated that honey is easily digested, quickly assimilated and high in calories. Athletes found it a particularly valuable source of quick energy because it contains a comparatively small amount of sucrose, too much of which sometimes creates a detrimental reaction.

It was found that the Testing Group members were able to take honey in larger quantities than other foods of the sugar type without suffering the stomach distress that often follows a heavy intake of sugars. Another interesting fact uncovered was that honey could also be taken shortly before hard activity and between periods of activity without digestive distress. This makes honey a valuable aid in energy feeding before, during, and after athletic activity.

High In Calories

The high caloric value of honey was found to be an advantage to athletes participating in heavy training and competitive work, who need a high intake of calories. A tablespoon of honey contains 100 calories, a similar amount of ordinary sugar only 50.

When honey was used by athletes trying to take off extra weight, however, it was found that it seemed to provide more energy and a greater satisfying of the craving for sweet stuffs so common to those on a reducing diet. A little honey at the end of a low carbohydrate meal, such as is usually found in a reducing diet, gave the athlete the same sense of satisfaction usually provided by a heavy calorie dessert or sugar-sweetened tea or coffee.

When honey was used in large quantities at breakfast as a general sweetener (in the preparation of any food requiring sweetening), or taken 30 to 45 minutes before athletic activity, athletes participating in the tests not only reported more energy, but turned in a higher and longer sustained level of work. Endurance was definitely improved.

Athletes, or anyone participating in heavy physical work, need plenty of carbohydrates for their body to use as energy fuel. Honey appears to be the ideal answer to the problem of deciding how the carbohydrate should be taken. Members of the Sports College Testing Groups now use honey exclusively for this purpose. Fortunately, honey is an exceptionally pleasant tasting food and thus the athlete who includes it in his regular diet and uses it as an energy jack-up has no taste problem.

Used in orange juice, Ovaltine or some other nutritious drink, honey after exercise, was found excellent in replenishing the energy fuel used up during hard activity. Such replenishing is a very effective help when the athlete desires to regain his energy quickly for a period of study, further athletic activity or just to regain his sense of well-being.

The track and field athlete competing in a number of events in one afternoon, or the athlete playing an important role in any fast moving game, will find that his energy level will remain higher than usual if he takes honey before activity and between periods of play.

In endurance tests, during which members of the Testing Groups worked for long periods of time, it was found that those who were fed honey before the test and at intervals during the test, sustained a much higher level of effort than did those who were not given honey. When taken off honey during the activity, the athletes found their performances dropped.

In tests made in the National Hockey League with the Detroit Red Wings, honey as a regular energy food and as an energy jack-up proved popular. "Red" Kelly, the all-star defenseman, said he felt and played better when he began to take honey regularly.

As a result of the excellent record of honey, in tests to find sources of carbohydrate energy for athletes, the Sports College research department recommends it as an ideal answer to the energy fuel problem. It has been placed high on the list of eating "musts" for the athlete.

* Reprinted from Research Guide, Summer, 1951, by permission of Sports College, Toronto, Ontario, Canada.

Honey is used as a regular energy food and a source of quick energy when engaging in sports by the Detroit Red Wings, 1951 hockey champions. (Photo courtesy Fred Huber, Jr., Publicity Director, Detroit Red Wings Hockey Club)

Westchester County Beekeepers Assoc., Larchmont, N. Y., June 15

The Westchester County Beekeepers' Association will hold its regular monthly meeting at 2:30 p. m. on Sunday, June 15, at the home of Carlton E. Slater, 17 Bronson Ave., Larchmont, N. Y., just off U. S. Route 1. A good program is planned. An inspection of hives will be made for the benefit of the new beekeeper members. Refreshments will be served, visitors are welcome.

Carlton E. Slater, Publicity

Meeting of R. R. Valley Association

In what was one of the best meetings they have ever held the Rock River Valley Beekeepers' Association of Northern Illinois held their initial meeting of the 1952 season at the Mount Morris town hall on the afternoon of Sunday, April 6.

The case of the Illinois State Beekeepers' Association and the National Beekeeping Federation was ably presented and championed by State President Klebes of St. Charles, and Robert Gober of Rockford which resulted in securing several new members for these organizations.

The atmosphere of enthusiasm at this meeting seemed to be surcharged with optimism, many purchases of package bees were reported for this year, and with the honey plant situation looking quite good at this time the members seemed very hopeful for the season ahead.

In addition to mention of the state meeting to be held at Elgin, Illinois on July 13, we were also invited by Mr. Ross Morrill to attend the meeting at his farm at Elburn, Illinois on July 27. These Morrill meetings, with his unique attractions are really something to experience, last summer they had an attendance of 250 people, honey buyers as well as beekeepers, and this summer Mr. Morrill is aiming for an attendance of 500. It would be well worth an afternoon of anyone's time to attend.

Michigan Summer Meetings

Michigan Beekeepers Association summer meetings will be held at Frankenmuth park on Thursday, July 24th and at Bellaire park on Friday, July 25th. Meetings begin at 10:00 a. m.

Bring a picnic lunch. Coffee and ice cream will be served locally.

These will be interesting meetings with short talks and identification of any honey plants that you wish to bring.

All beekeepers and their friends are welcome.

E. C. Martin,
E. Lansing, Mich.

Short Course at The Pennsylvania State College, August 16-22, 1952

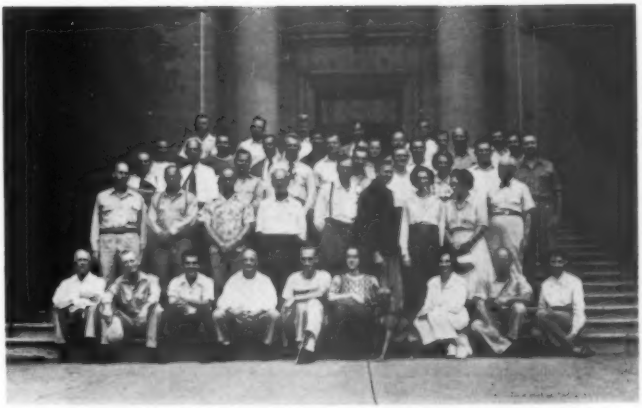
Those who are planning to attend the one week's Short Course at the Pennsylvania State College in August will have the benefit and pleasure of working with new and improved extracting equipment that was designed and constructed during the past year. This equipment was prepared to meet the needs of three classes of beekeepers, the beginners, the side line beekeeper and the smaller commercial operators. All three sets of equipment will be used during the course.

The program, as a whole, will be conducted along the lines followed in previous years which consists of lectures each morning and work in the apiaries with the bees and in the laboratory with honey in the afternoons. The course will close at 5 p. m. Friday afternoon, to be followed with a banquet at 6:30 p. m.

The Pennsylvania State Association meeting will also be at the College the same week or on Saturday, August 23rd, the day following the completion of the short course.

The speakers for the course will be George Rea, W. W. Clarke and Edwin J. Anderson. The cost is $7.50 for residents of Pennsylvania and $12.50 for those from outside the state. Those attending the course, last year, came from states as distant from Pennsylvania as Florida, North Dakota and Tennessee.

Two of those who attended last year were blind, but in spite of this handicap they reported receiving a great deal of good from the course. Their "Seeing-eye-dog," is shown in the center bottom of the picture.



Beekeeping Short Course—Penn State—Aug. 1951

Lake Region Beekeepers Assoc. Richville, Minn., July 8

The next meeting of the association will be held at V. A. Sundberg and Sons apiary in Richville, Minn., on July 8 at 8 p. m. The L.R.B.A. was organized November 17, 1950 at Alexandria, Minn. It meets quarterly and all beekeepers in or around Douglas, Grant, Wilkin, Otter Tail and Becker counties are urged to attend. L. W. Sundberg, Sec'y.

Middlesex County Beekeepers Assoc.
Westford, Mass., June 28

The next regular outdoor meeting will be held at the apiaries of member R. B. Downing at Westford, Mass., June 28, 1952. New officers taking office at that time are: President, Chester McInnis of Arlington; Vice Pres., A. K. Tinkham of Belmont; and Sec'y-Treas., John H. Furber of Auburndale. The new directors are A. J. Baptiste and Arthur Southwick.

John H. Furber, Sec'y.

Cook Du-Page Beekeepers Assoc.
Lemont, Ill., June 29

The June meeting of the association will be held at St. Mary's Seminary at Lemont, Ill., on the 29th.

Roy Westley, Sec'y.

Illinois State Meeting
Elgin, July 13

Illinois beekeepers are reminded of the state meeting to be sponsored by the Cook-DuPage Beekeepers Association on Sunday, July 13 at Lords Park in Elgin, Ill. A detailed program of this meeting will appear in the next issue.

Ralph O. Klebs, Pres.

Answers . . .

conducted by

Frank E. McLaughlin

I should like to know how to remove a couple of swarms from house cornices which the owners of the building do not want torn off.

Charles L. Mohr, Pennsylvania

There is a trapping method used whereby most of the bees can be gotten out but the queen usually stays with the brood in the house and must be left. A platform is made and tacked up just opposite the opening in the building which the bees are using. A Porter bee escape is tacked over the hole which lets the bees out but prevents them from going back in. A nucleus, small hive, or regular size hive body is placed on the platform on the same level and facing the bee escape. There should be a frame of brood in this hive, a frame with a queen cell is best. The bees, when leaving their home, find the hive and since they can't get back into their old location, will accept the new hive. It takes from three to six weeks for the bees to make this change. By this time there are only a few bees left with the queen in the house. All entrances used by the bees should be closed before proceeding with this plan, leaving only the hole with the bee escape open. A cone made of screen wire is used sometimes instead of the bee escape. The large end is placed over the hole in the house and the small end into the entrance of the hive.

Sometimes carbolic acid is used to spray into the hole above the bees and comb in the building. The fumes go down and drive the bees out, including the queen. They most likely will cluster around the queen outside. If the queen can be found, cage her and put her in the hive, then put the bee escape or cone over the hole and the bees will follow her into the hive. If the queen is not found, as soon as the carbolic fumes clear away the bees will return to the building. If carbolic acid crystals are used dissolve them in an equal amount of water and take care not to get the solution on hands, face or eyes.

Are the flowers of the Jacaranda tree of value to bees?

D. W. Hong, Peru

The following is quoted from a bulletin "Nectar and Pollen Plants of California."

"Jacaranda ovalifolium is a tree with beautiful purple blossoms and is planted in southern California as a shade tree. Bees work it freely for nectar and pollen in May and June."

This tree does not grow in the Middle West so we have not observed it. However, we do have catalpa and trumpet creeper, both of the Biognoniaqeae family and which the bees work.

In producing cut comb honey what size frame and super is used? Will a 4½ inch frame in a regular section super make four one-pound comb honey sections?

Paul Sandeen, Minnesota

Any size super may be used for cut comb honey, preferably one of shallow depth, as the bees will fill and cap a shallow super of combs more quickly during a honeyflow and the grade of honey will be better. Whether the 4½ inch frame will make four one-pound sections depends on the type of honey and the way the bees draw out the comb. Some types of honey are much heavier bodied than others and sometimes the bees will draw out the comb in better shape than at other times. A lot depends on how heavy the honeyflow is.

All Around The Bee Yard

by G. H. Cale

I go about in a daze these days (See what I mean?). Too much to do and too little time for it. Nature always races ahead of schedule just before the honeyflow. Perhaps we should be as one man just told me. He claims he does what he can today and if tomorrow comes he does more but he does not let it worry him. One very good beekeeper became so discouraged over crop prospects two years ago that he took out his dud colonies, piled on supers, and got a job. When there was no more likelihood of a flow, he found his crop very good at little cost. Maybe we do more with bees than we need to do. A good honeyflow will cure a lot of ills. The best management in the world will not result in a crop when there is a poor flow.

The Iowa summer short course at Ames, just past, was one of the best I have ever attended. It was too close to the flow to bring out a large crowd but those who did come were amply rewarded for the sacrifice.

Henry Schaefer was guest speaker and seldom do we have speakers who cover seasonal management with more clarity and detail than he does. His practice is timed and streamlined. Every move counts. No colony that is not in condition to conform to the successive stages in his management is considered. Such colonies are let alone, doubled, or removed as time offers. Every colony is standardized to fit the management plan. In the Round-ups he gives all the details—in February—in June—and again later at the end of the season.

Never mixed with a crowd that got down to brass tacks like this bunch at Ames. Professor Paddock, I congratulate you on your sagacity and planning. This course was an all-time high.

With a good crop this year and the support level of 12¼ cents for honey, maybe some of us can pay off on what we owe. Some beekeepers went clear out of business in the past few years because they owed more than they could pay or because they were losing more than they were gaining. It is time that we level off now or all the bright promises of this spark-plug industry will do us no good.

That expression, "spark plug" came from Frank Pellett who called beekeeping the spark plug of agriculture because of pollination.

The above might be read by the uninitiated to create an impression

that beekeeping is largely a commercial venture. In a way it is, as any beekeeper who produces honey for a profit is commercial. However, if the definition refers only to those who make a fair share or all of their living from bees, the total narrows considerably. If it means only those whose entire living comes from bees, the total is very small. By far the large majority of beekeepers are small by any measure. Beekeeping is quite avocational. It is to be hoped that its fascinations outweigh its money.

I am asked what we will do in the Journal when the Round-ups are over and I have a pretty good answer for 1953. We plan to cover in much the same way subjects that the present more or less chronological plan does not allow for—like disease, increase, queen rearing and introduction, and so on. It's easy to think of a long list of such important things. Wish we had a new name for next year as good as the present designation of the Round-ups. Have any suggestions?

But, don't ask me what we are going to do in 1954!

Newman Lyle seems to have about solved pollination values, at least for himself. He is a farmer as well as a five hundred colony beekeeper. On his own farm he has bees located permanently for the pollination of alsike and he has been getting five bushels or more of seed to the acre, all his. He keeps his phosphate level high, keeps down injurious insects with DDT or toxaphene, and harvests right with his own equipment.

He also has two farmer friends who have had his bees on their places for years in permanent locations. They supply an agreed acreage of alsike on shares; a third to Lyle if the farmer does the work; or a half if Lyle does it. Also the locations are good for honey. How can you lose with a deal like that?

A friend of mine just remarked that if you were able to visit a thousand beekeepers you would discover a thousand ways of management. How true. But how many of them would be highly efficient? Few, I believe. I am only interested in the ones that are so efficient that I can profit from a close study and trials of plans I may be able to use or adapt to my own outfit. Wouldn't it be nice if we could afford to see all the smart fellows over the country and give you a picture story of what they do and how well it works. Where will we start—huh?

Iowa will have a four-state meeting on July 12 at Sioux City with the Sioux Honey Association as host. From what I hear they plan a bang-up day with a lot of fun, good food, good demonstrations and a few top-notch speakers. Let's mark up our calendar right now so we can be there. I guess anyone on the continent is welcome. Might say anyone in the whole world. It might be profitable at that, regardless of distance. We hope to have details in the July issue.

Soil Conservationists Encourage Beekeeping . . .

by J. E. Critz
Soil Conservation Service
Fayetteville, Ark.

ARKANSAS chalks up another first! The first state in the nation to pass a law permitting the creation of locally managed soil conservation districts was Arkansas. Now, four of these districts in northwest Arkansas have paved the way for the development of a new beekeepers' association.

Northwest Arkansas, an old farming area, is rapidly building a new agricultural pattern. It has been one of the principal fruit-growing areas of the country and has developed a chicken-growing industry rivaling that of Delaware and Georgia. Improved pastures, with new grasses and legumes, are attracting farm and ranch folks. Strawberry and grape raising, and the commercial growing of rainbow trout and bait minnows, are among its agricultural enterprises. And now northwest Arkansas is making its bid as a center of legume seed and honey production.

In all of these enterprises the Benton County, the Madison County, the Washington County, and the King's River-Long Creek Soil Conservation Districts have taken an active part. Their most recent move was to promote the organization of the Northwest Arkansas Beekeepers Association for planned pollination services and honey production.

Knowing that most of the legumes grown in the locality require insect pollination for good seed yields, the supervisors organized a series of meetings in 1951 to acquaint farmers and beekeepers with one another and to provide information on the value of a planned pollination program. This was followed up on March 5, 1952, with a meeting organized by all four soil conservation districts to encourage formation of a beekeepers' association. The group assembled at 10 a. m. at Rogers, Arkansas, and by 2 p. m. had a going organization.

H. L. Foster, Gravette, Arkansas, was elected president. Other officers are W. H. Smith, of Harrison, vice president, and Mrs. D. N. Doke, of Garfield, secretary-treasurer. The board of directors includes Bert Jackson, Huntsville; L. A. Carman, Prairie Grove; Pat Claybourn, Alpena; and Mrs. George Whitman, Yellville.

Speakers were Mrs. Rea Davis, secretary, Arkansas Beekeepers Association; R. H. Davis, state inspector of apiaries; Ray McLester, representing the president of the state association; Erwin Glew, field representative, Dadant and Sons, Inc.; and Philip F. Allan, regional biologist, Soil Conservation Service.

Soil Conservation District supervisors present included Tom McNeil, Harry Stitt, Elbert Graham, and Mack Givens of the Benton County Soil Conservation District; Ewell Boyd, A. H. Berry, Hugh Hargis, and Ralph Buck of the Madison County Soil Conservation District; and Ewing Jackson, Hugh Williams, and J. H. Pyeatt of the Washington County Soil Conservation District.

Seed production of the legumes of northwest Arkansas should get a big boost as a result of this new interest in bees.

Honey Recipe Box . . .

The American Honey Institute has a brand new piece of promotion in the form of a "Favorite Honey Recipes" box. The box itself is colorful and attractive, printed in three colors. Each box will contain a set of index cards, sixty-four recipe cards, thirty-two of which will have a honey recipe printed on one side and the picture of the finished product on the other side. The other thirty-two cards will have a honey recipe or menus or use of honey in some other way printed on one side.

You will want a box for yourself and more for your friends. This box will make a most acceptable gift for any occasion. You'll want to see that every bride and her mother has one. The box will be mailed in a heavy corrugated container, postage paid, for $1.00. These boxes may be had with either red or green as the predominating color.

Why not send your order today so as to receive one of the first boxes! A price on orders of twelve or more may be had by writing American Honey Institute, Madison 3, Wisconsin.

1951 Package Bee Shipments

Final U. S. D. A. figures for 1951 show shipments in the United States of 283,977 packages of bees with a total of 712,100 pounds; just a small amount under the 1950 shipments. California led with 84 thousand packages, Alabama second with 57 thousand; then Louisiana with 50 thousand, followed by Georgia, Mississippi and Texas. An average of 3.8 pounds was shaken per colony run for package bees.

In queen rearing a total of 696,100 queens were mailed out or shipped, again just about the same as a year earlier. Again California, Alabama and Louisiana led in number shipped with the other three states following. It was estimated that on Jan. 15, 1952, 40 per cent of the 1952 expected production had been booked.

Moving Soon? . . .

To make sure of receiving your copy of AMERICAN BEE JOURNAL promptly, please send advance notice of your change of address directly to us.

At least four weeks before change takes effect let us know:

1. Date you are moving.
2. Old address.
3. New address.

Crop and Market

by M. G. Dadant

Condition of Bees

Again we report that in practically all sections of the country bees are up to par or maybe advanced a week or two over the average, except for some unusual instances. Georgia and the Carolinas report bees somewhat backward probably due to the shortage of stimulative flora. In Minnesota also, some bees came into the spring in weak condition and have built up slowly. Utah and Idaho report heavy losses and bees getting into condition slowly. But in most of the country bees are normal or above. In California particularly, conditions have reached almost the zenith of perfection as this is being written.

In the Canadian provinces, bees which were carried over are in fairly good condition and packages have been developing well with moderate weather conditions.

All in all, we believe that colonies are approaching the main crop under above normal conditions.

Honey Plants

Throughout practically the whole country, honey plants are in excellent condition for the flow with ample moisture. However, this does not seem to be the case in south Georgia and extending into the northern sections. Some parts of Wisconsin and Minnesota report dry weather, although probably this has been remedied. We also find subsoil conditions below normal in the south plains extending from west Texas into New Mexico and there are reports of some shortages of legumes in the northern intermountain sections. Manitoba reports conditions just a little too dry for good legume growing, but possibilities are developing.

The Crop

Naturally, in all the northern sections of the country, little crop has developed. However, the introductory or stimulative flows have been fairly good but hindered somewhat during early May by cool weather which has persisted for at least two weeks.

Georgia again reports the early crop is insignificant, but Florida and sections extending across the South apparently have had at least normal or above normal conditions. Texas conditions are hardly up to normal, with honey plants developing quite slowly. In Arkansas, the opposite is the case and the crop so far has been extremely good.

On the west coast, California is reporting one of the finest orange flows they have had in many years, with the prospects of other flows developing. When one considers that the rainfall in California for the year has more than doubled the average and is far in excess of the moisture last year, there is some reason for optimism.

Some swarming has been reported in California and in some of the southern sections and there has been a question whether, when the cool weather abates in the north central areas, the bees there might also be inclined to swarm, having increased in strength and been confined to the hive.

We must not lose sight of the fact that with the retarding of the natural flows and the bees building up, there is a double danger. One is that the bees may starve unless closely watched, and the other is that a shortage of food is going to cause retarded egg laying and brood rearing, and consequent delaying of peak strength for the colony. The forewarned beekeeper will have assured the colony of ample stores to carry it through until warm weather arrives.

Honey on Hand

The amount of honey on hand is negligible the country over. Packers still have enough to carry them through to the new crop, but the amount in the hands of the producer is very small and prices have advanced significantly since the new support price has been announced.

In the eastern Canadian provinces of Ontario and Quebec, and even extending into Manitoba, there is a considerable carry-over, some of which may still be retained when the new crop is ready for market. However, it is amazing how well the previous surpluses of Canada have disappeared under the excellent advertising campaign and the other activities of the Canadian Beekeeping Council.

Increase

As a general rule, no increase has been made in bee colonies outside of making up the losses of winter. In fact, in some sections of the East and in the North Central States, the number of colonies apparently is being decreased as it has in previous years.

We find increase, however, in those sections where there is a decided effort to get maximum pollination. That means in some sections of the irrigated valleys of the plains states and extending into the Rockies, but particularly in California where the increase has been substantial. There has been perhaps a small tendency in the Red River Valley for some increase with the return of better prices and the appearance of more sweet clover in those areas.

Summary

On the whole, it would appear that colonies are coming into late May with fine clusters of young bees reaching a peak for the crop, particularly if they have been protected against food shortages where inclement weather has prevented the bees from getting into the fields.

Honey plants are also plentiful, as is moisture in most sections and the combination of both would indicate the crop now depends entirely upon the weather at blooming time.

With no great amount of honey on hand, with no great amount of increase being made, with the new support price on the part of the government, and the promotional program for October undertaken by the Production and Marketing Administration, U.S.D.A. in cooperation with the industry, conditions look propitious for the 1952 year.

The Market Place . . .

BEES AND QUEENS

CAUCASIAN BEES AND QUEENS—Extra good workers and very gentle. 2-lb. with queen $3.00; 3 lb. with queen $4.00. Select untested queens, 1 to 25, $1.00; 25 to 100, 90c; 100 up, 80c each. All orders given special attention. Black River Apiaries, Elliott Curtis, Mgr., Currie, North Carolina.

YANCEY HUSTLERS — Packages and queens—ready April 1st. Three band Italians, bred for business. Overweight packages, queens spring reared under ideal conditions, all guaranteed to please. 2-lb. pkg. with queen $3.50; 25 or more at $3.25 each; 50 or more at $3.00 each. For 3-lb. packages add $1.00 to above prices. Caney Valley Apiaries, Bay City, Texas.

THREE BANDED ITALIAN bees and queens, best of quality. 2-lb. with queen $3.00; 3 lb. with queen $4.00. Select untested queens, 1 to 25, $1.00; 25 to 100, 90c; 100 up, 80c. Write for prices on larger orders. Phone 4703. Alamance Bee Company, Geo. E. Curtis, Mgr., Graham, North Carolina.

GOLDEN ITALIAN BEES and QUEENS very yellow and gentle to work with. 2 lb. with queen $3.00; 3 lb. with queen, $4.00. Select untested queens, 1 to 25, $1.00; 25 to 100, 90c; 100 up, 80c. Satisfaction guaranteed. Phone 7731. Carolina Bee Farm, W. O. Curtis, Mgr., Graham, North Carolina.

CAUCASIAN QUEENS — Young, laying. Personally raised. $1.00 each. Fred Brock, McDonald, Tenn.

SELECTED ITALIAN QUEENS 75c each, Caucasian 90c, Carniolans $1.00 each. All queens shipped by Air Mail and guaranteed to please. Walter D. Leverette, P. O. Box 364, Ft. Pierce, Florida.

BRIGHT 3-BAND ITALIAN bees and queens—3 pounds $4.25; 4 lbs. $5.15; 5 lbs. $6.00; queens 75c. Bright or dark. All bees delivered. Luther Pickett, Owner. Orange Bee Co., Efland, N. C.

YELLOW ITALIAN bees and queens—Quality and service guaranteed. 2 lbs. with queen $3.65; 3 lbs. $4.65; queens 80c Air Mail. O. E. Brown, Rt. 1, Asheboro, N. C.

DOES EXPERIENCE and KNOW HOW mean anything to you? Green's profit producing queens are backed by 25 years of breeding better queens and shipping them to you when you want them. Price —90c each; after June first, 50c each. D. P. Green, Rt. No. 2, Deland, Fla., Telephone 512M.

CAUCASIAN QUEENS—One, 75c; twenty-five or more, 65c each. Tillery Brothers, Greenville, Ala.

FOR SALE

SUPERS—10-frame, drawn comb, Modified Dadant depth. Like new. Many other items. Paul La Piant, 235 E. Main St., Anoka, Minn. Phone 400.

30 apiaries, 900 colonies. Irrigated cotton blossom honey. John Bennett, Box 132, Safford, Arizona.

FOR SALE—1952 models Electro-Flo filling machines $285.00 f.o.b. Hancock Honey House, Hancock, Iowa.

FOR SALE—Honey house 16x50 ft., 2 story building, with lean-to 8x50 ft., 16 ft. posts. Also 9 H.P. steam boiler in good shape, 45 frame honey extractor, honey tanks, wax press and pump, and other bee equipment. Good set-up for anyone wanting to go into the bee business. Write or see John Schroeder, Wentworth, S. Dak.

FOR SALE—300 5-frame nuc boxes with reversible screen covers. Contact Archie Lyon, Anthon, Iowa.

Copy for this department must reach us not later than the tenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rate of Classified advertising—13 cents for each word, letter, figure or initial, including the name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on comb must guarantee them free from disease or certificate of inspection from authorized inspector. The conditions should be stated to insure that buyer is fully informed.

FOR SALE—Sr. size Brand melter, like new. 2 frame Woodman extractor, good condition. Reasonable. V. C. Meyer, Pipestone, Minn.

SUBSTANTIAL two-frame reversible extractor, large baskets, new power drive. Arant Apiaries, Forest Grove, Oregon.

30-frame radial honey extractor, tanks, 100 shallow supers with frames, body hives, other supplies. Emily A. Burian, 521 E. 4 St., West Liberty, Iowa.

NINE HUNDRED POUNDS Dadant's crimp-wired foundation and several hundred new standard bodies with wired frames. Walter Roose, Sac City, Iowa.

FOR SALE—16 colonies bees, several hundred unbound 10-frame queen excluders, eight-frame extractor, capping box, capping melter, 11,000 pound honey tank and stand, 180 10-frame new inner covers, hot water boiler, some 8-frame equipment. Also other articles not mentioned. No disease. W. M. Peacock, Mapleton, Iowa.

TWO FRAME and 30-frame extractor, 60 and 500 gallon tanks, wax press and Woodman honey sump. Chas. S. Engle, Jr., Wolfe City, Texas.

STANDARD 10-fr. equipment, new shallow supers 85 with frames, not new four years bottom boards, hive bodies, inner covers and covers. Fred Beuscher, 3035 North 73 St., Milwaukee, Wisconsin.

HONEY and BEESWAX WANTED

WANTED — Extracted honey, white or light amber, in 60's. State price in first letter. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

WRITE FOR SHIPPING TAGS and current quotations on rendered beeswax. Any amount from one pound up bought. If you have 25 pounds or more, save 25% by letting us work it into foundation for you. Walter T. Kelley Co., Paducah, Kentucky.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

WANTED—All grades comb and extracted honey, large or small amounts. Quote price in first letter. Mail sample. King Honey Co., 4308-10-12 E. Truman Road, Kansas City, Mo.

CARLOADS or less of honey and wax. Send sample and price. Alexander Co., 819 Reynolds, Toledo, Ohio.

COMB and EXTRACTED HONEY wanted. Truck or carload lots. Contact Victor Honey Farms, Josephine, Texas.

WANTED—Honey, amber or white. Mail samples and state quantity. No buckwheat. Holland Honey Cake Co., Holland, Mich.

WHITE GRADES 11.4 and cans back, delivered. Mail samples. Cole Honey Co., 4460 Piedmont Ave., Oakland, Calif.

WANTED—3 carloads of buckwheat honey, 2 carloads of Florida orange blossom honey in barrels or cans, 2 carloads of southwestern alfalfa or cotton honey. Cash and top prices. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

WANTED—Extra white and light amber honey. Let us ship you the containers. Sell us your honey for CASH on delivery. The Hubbard Apiaries, Manufacturers of Bee Supplies and Comb Foundation. Onsted, Michigan.

HONEY FOR SALE

ANY GRADE — any amount. Alexander Company, 819 Reynolds, Toledo, Ohio.

ORANGE, PALMETTO and MANGROVE honey in new sixties. Peter W. Sowinski, Ft. Pierce, Florida.

CLOVER EXTRACTED HONEY in sixties. Ralph Gamber, 910 State, Lancaster, Pennsylvania.

HONEY, white clover, 17c per lb. 5 sixties or more 16c. Satisfaction guaranteed. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

SUPPLIES

WRITE FOR CATALOGUE. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

THE BIGGEST BEE SUPPLY CATALOGUE PUBLISHED (64 pages) free for the asking. Big factory manufacturing a complete line of wooden goods, comb foundation, metal goods, veils and gloves, carloads in stock, daily shipments, save 20%. WALTER T. KELLEY CO., PADUCAH, KENTUCKY.

THE ONLY COMB FOUNDATION PLANT in the East. We sell foundation, work your wax, render combs and cappings. Robinson's Wax Works, Rt. No. 3, Auburn, New York.

BEE SUPPLIES—Tin packages, 10 sizes glass jars, paper shipping supplies, window cartons and other items. Roscoe F. Wixson, Dundee, N. Y.

QUEENBEE PAINTING OUTFIT — $1.50. Colony records, 10 - 15c postpaid. Southwick Apiarists, Waban, Massachusetts.

SOUTHERN CALIFORNIA HEADQUARTERS for Bee Supplies. Make our facilities your "Trading Post." Complete stocks. See our Bulletin Board for Budget Bargains. The Diamond Match Company, 1300 Produce St., Los Angeles 21, Calif.

FOR CHRYSLER all steel electric welded queen excluders in the U.S.A. write to: Prairie View Honey Co., 12303—12th St., Detroit 6, Michigan. Ask for circular E 2.

BEE SUPPLIES—Catalogue free. Hodgson Bee Supplies Ltd., 565 13th Ave., New Westminster, B.C., Canada.

POSITION AND HELP WANTED

WANTED—Helper in bee yards. Wire or phone. Urgent. Good wages. Dr. Clark, Newell, S. Dak.

APPLICATIONS WANTED for year around work in commercial beekeeping. Give experience, age, and salary details in first letter. York Bee Company, Jesup, Georgia.

SEEDS AND TREES

HONEY PLANTS our specialty. Catalogue on request. Pellett Gardens, Atlantic, Iowa.

WANTED

WANTED—Filter press and honey pump. T. E. Turner, Box 342, Saginaw, Texas.

MISCELLANEOUS

KNOW interesting facts concerning the bees of India through the INDIAN BEE JOURNAL, published in English, by the Bhupen Apiaries (Himalayas), Ramgarh, Dist. Nainital, U.P., India, and obtainable from them. Subs. Rs. 7/-or 10 Shillings or $2.25 per annum. Single copy Rs. ¼-s. 1/9 or 49 cents (international money order). Payment in mint postage stamps of your country accepted.

"HONEY IN THE COMB," by Carl E. Killion. Let this book help you make a profit from your bees. Price postpaid $3.00. Killion & Sons Apiaries, Paris, Ill.

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information of range sheep than any magazine published. Subscription $1.00. Hotel Cactus, San Angelo, Texas.

In Answer to Professor Lovell

Professor Harvey Lovell, University of Louisville, Kentucky, is more than right in urging that honey be labeled as to source of nectar, so that the purchaser may know what he is getting. (Page 121, March issue of ABJ). The editor of the "Bee Record," England, suggests that extracting honey combs that have unsealed cells should be extracted before uncapping the sealed cells, and that this unsealed uncapped honey should be marketed separately from the honey from the sealed cells. There is a growing demand for honey labeled informatively.

In my city of about 6,000, few stores will handle honey at all if it is labeled only "Pure honey." The consumer here is insisting before he buys, that he knows what he is purchasing and that complete satisfaction is guaranteed. I have found that it pays to be honestly frank and forthright with my customers and as a result I have never had a carryover of honey; sell 95% of my honey direct to my customers at prices much above the average prices.

When will our big producers learn that they can't force "just honey" down the public's throats? It would seem they would "take a tumble" to themselves when honey now is going begging at the price of our cheapest priced commodities.

The "price support" for honey should be for all grades. The more the public is induced to try to eat the most inferior grades of food, the less they eat of that food. The egg producers of Washington don't try to sell second grade eggs. Our best producers of fruits and vegetables would never think of trying to work off their inferior products by mixing them with the finer ones. Yet our big honey producers and packers "blend" inferior honey and get a "common blend," if by so doing, they can get a resultant product that will come within the grade. I would consider myself dishonest to try to sell honey as it is now packed and labeled.

Joe Marty, Oregon

Ad Index

Bulletin for Beginners . . .

"Fundamentals of Bee Culture," bulletin 418-A, by Joseph O. Moffett, published by the Agricultural Experiment Station and the Agricultural Extension Service, Colorado Agricultural and Mechanical College, states that it "is designed for persons who are considering acquiring a few colonies of bees. It is not detailed enough for commercial beekeeping, but should help the inexperienced beginner in buying bees and in finding where more detailed information may be found."

As the author states, the new student of bees should also have a general reference book and subscribe to a bee journal. But for elementary information written in a clear and easy-to-understand style, we can recommend this bulletin highly. The pictures are, on the whole, very clear and illustrate the text. Mr. Moffett has thought of many things which puzzle the beginner but which are often left out of "first" publications.

After an introduction, reorganization of the colony is discussed, followed by good advice on how to obtain bees. Further sections deal with locations, honey plants, equipment and management, diseases, races of bees, and honey. Discussions of laws and organizations relating to beekeeping follow.

Part of the information included is slanted particularly towards the Colorado beekeeper. The chapter on diseases, with means of identifying and prevention or treatment of each, is especially good. Those interested in pollination will find pertinent information.

Australian Passes Away . . .

W. A. Goodacre who has been Principal Livestock Officer (in apiculture) with the New South Wales Department of Agriculture for 35 years, passed away late this winter.

Mr. Goodacre has been during that period one of the finest influences for good in that section of the world. He has written several bulletins on beekeeping, his book "Bees and Honey" was a national text and his writings on New Zealand honey flora were equally appreciated.

Always confronted with ill health, Mr. Goodacre persevered in his efforts for better beekeeping, quality grading, and better methods of queen rearing. In fact he covered the field of beekeeping thoroughly.

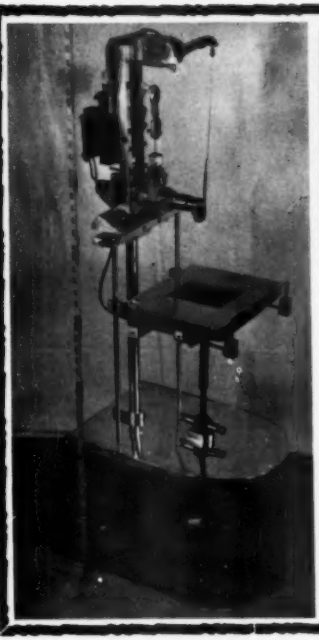
Anderson of Louisiana . . .

We just learn of the death of W. E. Anderson, Commissioner of Agriculture in Louisiana. He succeeded Harry D. Wilson a few years ago. Both men were vitally interested in the beekeepers of Louisiana and their problems. Previous to his ascendancy to Commissioner, Anderson had for many years been State entomologist.

When the disastrous floods hit Louisiana in 1927, Anderson was at the forefront in seeking contributions and help in re-habilitating the beekeepers and with Jes Dalton and others worked tirelessly to repair the heavy losses.

He was active in protecting the beekeeping and package bee interests in Louisiana by fostering strict laws, and was equally tireless to get supplies for his breeders, in fact for all breeders, during the war crisis. It would be hard to conceive of any one in official position who has done a better job than W. E. Anderson, not only in beekeeping but in the whole agricultural field.

He had just been re-elected to a four year term. Mr. Dave L. Pearce his opponent in the last election has been appointed to succeed him.



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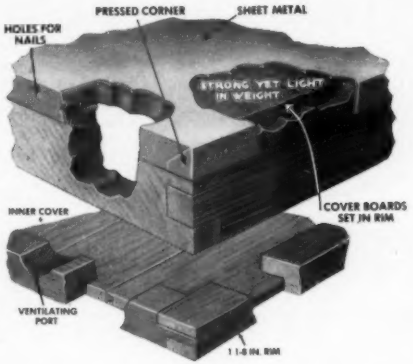

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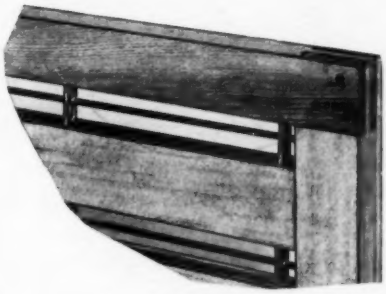

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